THE UNIVERSITY OF NEW MEXICO BULLETIN

COURSE OF STUDY

IN

HEALTHFUL LIVING

INCLUDING HEALTH, PHYSICAL AND SAFETY
EDUCATION

FOR

GRADES I TO VIII

BY

THE COMMITTEE OF TWENTY-FIVE

UNDER THE DIRECTION OF

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FOREWORD

The tentative course of study in healthful living is the product of a cooperative effort on the part of the school systems, school women, and school men in the State of New Mexico. The development of this monograph was made possible through the kindness of President James F. Zimmerman and Dean of Education S. P. Nanninga of the University of New Mexico. They made provision for courses in curriculum revision in the summer sessions of 1927, 1928, and 1929 in order to be of service to the public schools of the State. Doctor George C. Kyte of the University of Michigan, a consultant in curriculum making, was invited by them to direct the work in the courses.

The twenty-five superintendents, supervisors, principals, and teachers, representative of the educational staffs in the State, assumed direct responsibility for carrying on the work of making the course of study as registered students in the 1929 summer session of the University. They represented various grades and schools scattered throughout New Mexico.

Teachers in the public schools of New Mexico cooperated in the building of the course of study in healthful living by submitting reports of lessons they had taught in their classrooms. From the reports received, various illustrations were selected and included in the monograph.

The statement of the general aims of education as written by the Committee of Twenty-One and included in the course of study in language completed in 1928 has been incorporated in the present monograph, as expressing the educational philosophy to which the Committee of Twenty-Five gladly subscribes.

The course of study has been greatly enriched through the study and use of materials found in many other courses of study, literature published by public spirited organizations interested in the promotion of health and safety education, and organizations interested in special phases of healthful living. The Committee wishes to acknowledge the value of the contributions to the course of study obtained from these sources.

The Committee presents this monograph to the teachers of New Mexico as a suggested course of study in health, physical, and safety education. It is hoped that it will be given a thorough and sympathetic trial. Such a trial should reveal any weaknesses which may exist and make possible a revision based on the suggestions derived from the experience of the teachers using the course of study.

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GENERAL AIMS OF EDUCATION

In general, the purpose of public education in a democratic form of society can only be achieved through methods and subject matter which will develop in the child, in the largest measure: (1) the ideals of worthy individual and social life; (2) the powers of self direction, self appraisal, and self control and (3) the desire and ability to work cooperatively with others in the solution of all social problems.

In successful living there are six major fields of problems in which essential powers are exercised. These are:

- (1) health, (2) worthy home membership, (3) citizenship,
- (4) recreation, (5) vocation, (6) ethical character.

The solution of these problems must be achieved through controlled environment which surrounds the child within and without the school.

The achievement of our social objectives under modern civilization demands that the individual must have efficient control of the tool subjects.

I. Health.

Health education is fundamental. Upon the health of the individual depends his success, the vitality of the race, and the defense of the nation. That increased attention to healthful living is necessary is shown by the draft statistics which revealed thirty-five per cent of men examined unfit for service. Seventy-five per cent of all school children examined are found to have some sort of physical defect.

II. Worthy Home Membership.

Worthy home membership as an objective calls for the development of those qualities that make the individual a

worthy member of a family, both contributing to and deriving benefit from that membership. It should not be thought of solely with reference to future duties. These are better guaranteed if the school helps the pupils to take the right attitude toward present home responsibilities and interprets to them the contribution of the home to their development.

III. Citizenship.

Civic education should develop in the individual those qualities whereby he will act well his part as a member of the neighborhood, town or city, state and nation, and give him a basis for understanding international problems. The citizen must have many sided interests in the welfare of the communities to which he belongs: loyalty to ideals of civic righteousness; practical knowledge of social agencies and institutions and good judgment as to means and methods that will promote one social end without defeating others.

Habits and attitudes of cordial cooperation in social undertakings must be developed also. There should be, also, a comprehension of the ideals of American democracy, and loyalty to them should be a prominent aim of all civic education. An understanding of internationalism is also necessary.

IV. Recreation or Worthy use of Leisure.

Education should equip the individual to secure from his leisure the recreation of body, mind, and spirit, and the enrichment and enlargement of his personality. Through social relationships the school can establish bonds of friendship and common understandings that cannot be furnished by other agencies.

V. Vocation.

Vocational education should equip the individual to secure a livelihood for himself and those dependent upon him, to serve society well through his vocation, to maintain the right relationships toward his fellow workers and society and, as far as possible, to find in that vocation his own best development. Also vocational education should aim to develop an appreciation of the significance of the vocation to the community, and a clear conception of the right relations between the different vocational groups—between employer and employee, and between producer and consumer.

VI. Ethical Character.

Personal responsibility, initiative, the spirit of service and the principles of true democracy should permeate the entire school curriculum. Teaching must train pupils not only in accurate thinking but also in clean, right-minded thinking.

All education must be considered as a unified process, the knowledge, habits, skills and attitudes of pupils will depend upon the clearness of the teacher's perception of the above cited aims, objectives and purposes, of their interdependence, and their application to subject matter and instruction.

SPECIFIC AIMS OF HEALTH EDUCATION

Health Education is not confined to a single subject or period but is a thread about which the whole of life is woven. It should be taught not as an end but as a practical means through which the child will be able to lead a more joyous and abundant life. The specific aims of health education are therefore to fit the child for rich and worthy living through:

I. Healthful Living.

- A. By providing the knowledge necessary to the proper understanding of the health habits.
- B. By the formation and practice of certain specific habits essential to health and safety.
- C. By the developing of right attitudes and ideals with regard to both physical and mental health.

II. Citizenship.

- A. By developing a clear understanding of local health problems.
- B. By providing opportunities for cooperation in controlling health situations in the home, school and community.
- C. By developing the proper ideals of civic health through
 - 1. Cooperation
 - 2. Sportsmanship
 - 3. Leadership

III. Worthy Use of Leisure Time.

A. By developing the knowledge and information necessary to the enjoyment of recreational activities.

- B. By developing skill and ability in a variety of games and sports.
- C. By developing a wholesome attitude toward all sound recreations.

IV. Ethical Character.

- A. By developing the knowledge of right conduct in all health situations.
- B. By developing the habits of
 - 1. Obedience to proper authority
 - 2. Alert and attentive behavior
 - 3. Quick perception and prompt response.
- C. By developing the ideals of
 - 1. Emotional stability and self-control
 - 2. Honor, loyalty, and responsibility
 - 3. Fair Play.

TIME ALLOTMENT IN HEALTH EDUCATION

In determining the time to be allotted health education in each grade, the sub-committee has made use of research studies in this field and the time schedules in various courses of study. In the table, the findings from two recent research studies are included along with the recommendations of the committee regarding the time devoted to the study of hygiene, physical training and supervised play. It is recommended by the committee that supervised play shall be divided into two daily periods which should come when the vitality of the children is low. These recess periods will probably fall in the middle of the morning and afternoon sessions.

Time Allotment in Health Education for Each Grade

Minutes per Week in Each Grade													
		I	II]		IV Y	V VI	VII	VIII					
Supervise	ed												
Play		127	125	124 1	.00 10	07 106	3 100	99					
Physical													
Training ¹		90	87	89	90	90 89	98	104					
Hygiene ¹		16	16	18	22 2	27 27	7 25	22					
Total ¹		233	228 2	241 2	212 22	24 222	2 223	225					
	I	II	III	IV	V	VI	VII	VIII					
Supervise	ed												
Play ²	100	100	110	110	110	110	100	100					
Physical													
Training ²	91.4	90.2	91.5	94.3	94.8	91.9	94.1	102.2					
Hygiene ²	11.6	13.9	14.5	24.2	25.7	28.3	39.5	20.7					
Total	203	204.1	216	228.5	230.5	230.2	233.6	222.9					

For New Mexico

	I	II	III	ΙV	V	VI	VII	VIII		
Recess, including										
Supervised										
Play	150*	150	150	150	150	150	150	150		
Physical										
Training	90	90	90	90	95	95	100	100		
Hygiene	25	25	25	45	45	50	50	50		
Total	265	265	265	285	290	295	300	280		

^{*}Arrange length of time according to length of school day in this grade.

^{1.} Ayer, F. C. - Time Allotments in the Elementary School Subjects, United States Bureau of Education, City School Leaflet, No. 19, 1925.

^{2.} Kyte, G. C. - A Study of Time Allotments in the Elementary School Subjects. California Curriculum Study, Bulletin No. 1, 1925.

METHODS OF TEACHING HEALTH EDUCATION

Health is not a conscious process; it is a way of living. The methods of teaching should be of such nature that the child takes part in the proper processes of health education through living, working, and playing in such a manner that results in actual habits of living are obtained without the formalism associated with the usual subject.

The methods outlined below are believed to be effective in securing a set of knowledges and attitudes tending to produce healthful bodies and personalities.

These methods are: (1) problem solving, (2) project execution, (3) appreciation lessons, (4) drill lessons.

THE PROBLEM METHOD

Our greatest activity in life is the solving of every day problems. For generations back man has been more or less successful in the solving of these problems. If the child is to be efficient socially, we must begin early to train him in the solution of health problems. Any problem of health hygiene that meets the needs of real life is a good one. It should be viewed from two standpoints: (a) what can the child see in it; (b) what educational value can the teacher see in it. The problem method is efficient as a means of presenting the subject of health hygiene.

The principles involved in the problem method are:

- 1. The entire class must understand the problem to be solved.
- a. Pupil must be interested so that his activity will become definite and lead to a specific goal.
 - b. He must define the problem
- c. The problem must affect the pupil in some way to be meaningful.

- 2. Information should be recalled from past experiences.
 - a. Review similar past experiences.
 - b. Are they sufficient or does he need new ones?
- 3. The pupil should collect new material.
- 4. He should analyze and evaluate materials.
- 5. A conclusion should be reached by the child.
- 6. He should verify the conclusion.

This method of presenting a subject is a means of definite activity on the part of the child. He must do his own work and the teacher act only as a guide. Otherwise it ceases to become his problem.

For illustrations of problem solving, see the suggestive examples presented in the illustrations for the various grades

THE PROJECT METHOD

A project is a purposeful activity involving construction and creation carried to completion.

Selection of projects must be made on the basis of relative values. Those activities must be selected which lead to further acts of large and persistent values. The project units must be large enough to include various minor projects or problems.

In the execution of a project the child must be the one to do the feeling, thinking or acting. The project may involve the efforts of one pupil or a group of pupils.

The project method affords an excellent opportunity for the use of the socialized recitation. The activities should be chosen by the pupils, in so far as possible under the stimulating guidance of the teacher—who is in the background.

Every project includes a problem; therefore, the steps in working out a project are very similar to those in a problem, namely:

1. Have a definite understanding of the project.

- 2. Use past experiences to help in its execution.
- 3. Acquire from new experiences the additional information necessary to carry out the project.
 - 4. Organize the materials.
 - 5. Complete the project.
 - 6. Test it by putting it to use.

For illustrations of the project method, see the suggestive examples presented in the illustrations for the various grades.

THE APPRECIATION LESSON

Appreciation lessons in health should establish right attitudes, ideals, and high standards of living by creating a love for the clean and beautiful.

There is a direct correlation between the mental and the physical which necessitates the teaching of appreciation lessons in health through art, rhythm, literature, and the idealistic in order to completely bring about the real joy of living found in all healthy personalities.

Materials for this purpose may consist of pictures, posters music, statuary, stories of health and safety, choice selections of literature and biographies.

Appreciation lessons should be presented so as to bring to the child a realization of the value to him of a healthy body and the desire to acquire knowledge which will aid him in reaching his goal.

For developing the appreciation lesson there should be:

- 1. Thoughtful, intensive preliminary preparation on the part of the teacher.
 - 2. Genuine enthusiasm of the teacher.
 - 3. Careful preliminary preparation of the pupils.
 - 4. Impressive introduction of the subject by the teacher.
 - 5. Interesting presentation throughout the lesson.
- 6. A consideration of the individual needs and levels of development of pupils in presenting the subjects.

7. A directing of the emotions and interests which have been aroused in the pupil into the activities of healthful life.

THE DRILL LESSON

Drill may be used to form and maintain health habits pertaining to the realization of the aims and objectives outlined elsewhere in this course.

Drill should be of such nature as to

- 1. Avoid monotony
- 2. Give pleasure and satisfaction to the child.
- 3. Encourage spontaneity and
- 4. Reach the desired end with a minimum of time and concentrated effort.

Drills will be found useful in establishing correct health and physical habits of posture, cleanliness, play, safety and the like.

The drill should be of short duration, varied according to the age and needs of the child. It should be given daily at first and the interval between drills gradually lengthened at the discretion of the teacher.

Drill should be used as a tool to obtain definite and not approximate responses and results.

CORRELATION WITH OTHER SUBJECTS

As everything in the environment should contribute to individual health it is impossible to make the study of health a separate subject. The field of health education is rich with possibilities for correlation with other subjects in the curriculum. The following are some of the ways in which this may be accomplished:

Reading—supplement the text with any interesting health material.

Language—use health jingles, slogans, dramatization, debates, essays.

- Art—correlate with costume designing, poster work, health booklets and banners.
- Handicraft—relate Industrial Arts and Home Economics to health study, physical exercise, and safety.
- Geography—study foods, clothing, and environmental conditions and compare these things in our own country with those of other countries.
- Civics—develop individual responsibility for maintaining clean rooms, school buildings, and grounds, Safety work, Citizenship.
- Spelling—list words taken from health situations.
- Music—use health songs, rhythmic exercises, folk dances.
- Arithmetic—use graphing problems based on individual and group height and weight records, achievement test results, measurement problems in amount and costs of foods needed, planning and laying out play spaces.
- Nature Study—apply health in home garden projects and nature study field trips.
- History and Biography—read and study contributions to health from work of scientists as Pasteur, Jenner, etc. Penmanship—encourage good posture and cleanliness.

GRADE PLACEMENT OF SUBJECT MATTER

FIRST GRADE AND SECOND GRADE

I. Personal Hygiene.

A. Cleanliness

Care of hands

Care of face

Care of neck and ears

Care of fingernails

Care of body

Hands away from face

B. Care of Mouth and Teeth

Brush teeth

Avoid injuring enamel

Foreign objects out of mouth

C. Care of Special Senses

Eyes

Ears

Nose

Harmful voice

Protection against foreign objects

D. Elimination

Regularity

II. Mental and Social Health.

A. Desirable Mental Traits

Consideration for others

Self-control

Cheerfulness

Truthfulness

Obedience

Courtesy

B. Active Interest in Surroundings
Care of pets
Care and need of flowers, grass, and tree

Care and need of flowers, grass, and trees Care of property

C. Participation in Plays and Games

III. Nutrition.

A. Diet for Children

Variety of foods
Milk, whole grain cereals, fruits, vegetables, etc,
Height and weight

B. Food Habits

Time to eat and drink
Amount of water
Mastication
Atmosphere at meal times
Over-coming aversions
Things to avoid

Tea, coffee, etc.

IV. Rest, Air, and Sunshine.

A. Necessity to Life
Correct breathing

B. Sleep

Amount necessary

- C. Rest Before and After Eating
 Value of complete relaxation
 Afternoon rest
- D. VentilationDuring sleepProper home and school ventilation

V. Clothing.

A. Selection of Clothing Suitable for weather

- B. Care of Clothing
- C. Removal of Inappropriate Clothing

VI. Posture.

- A. Meaning and Importance of Posture
- B. Correct Standing and Sitting
- C. Relation to Good School Work
 Demonstrations of good posture
- D. Causes and Effects of Posture

VII. Exericse.

A Supervised Play

Benefits

Time for play

Procedure in play

Out-of-doors

- B. Comparative Values of Indoor and Outdoor Play
- C. Health Habits and Physical Efficiency
- D. Proper Time for Exercise

VIII. Sanitation.

- A. Safe Milk and Water Cleanliness of
- B. Use of Everyday Utensils and Materials Individual cups, towels, pencils, etc.
- C. School, Home and Community Sanitation

IX. Safety First.

A. Common Home, Community and School Accidents

Street and railroad crossings

Stairs

Vehicles

Teasing of animals

Sharp instruments

B. Fire prevention and Protection

Matches

Lamps

Fire drills

C. Protection of Others

X. First Aid.

- A. General Procedure in Emergencies
- B. Practical Demonstrations

Nosebleed

Clothing on fire

Cuts and wounds

XI. Contagious and Infectious Diseases.

A. Common Carriers

Flies

Mosquitoes

Human beings coughing and sneezing

Common utensils and materials

Pets

B. Disease Control

Avoidance of disease

Reporting to teachers

Cleanliness

THIRD GRADE

(Continue Improvement in Items of Previous Grades)

- I. Personal Hygiene.
 - A. Cleanliness
 - B. Care of Mouth and Teeth
 Importance of diet to teeth
 - C. Care of Special Senses
 Moderate use of voice
 - D. Elimination
 - E. Skin Structure and Care

 Drying skin thoroughly

 Treatment of chapped lips and skin

II. Mental and Social Health.

A. Desirable Mental Traits

Friendliness

Unselfishness

Breaking down grudges

- B. Active Interest in Surroundings
- C. Completion of Tasks and Self-Confidence Promptness
- D. Participation in Plays and Games

III. Nutrition.

- A. Relation of Food to Growth Height and weight
- B. Diet for Children
- C. Food Habits
- D. Evil Effects of Narcotics and Alcohol

IV. Rest, Air and Sunshine

- A. Necessity to Life
 Disinfecting properties
- C. Rest Before and After Eating
- D. Ventilation

V. Clothing.

- A. Slection of Clothing
- B. Care of Clothing
- C. Removal of Inappropriate Clothing

VI. Posture.

- A. Meaning and Importance
- B. Correct Standing and Sitting
- C. Relation to Good School Work
- D Causes and Effects of Posture

VII. Exercise.

A. Supervised Play

- B. Comparative Values of Indoor and Outdoor Forms of activity for development
- C. Health Habits and Physical Efficiency

VIII. Sanitation.

- A. Safe Milk and Water
- B. Use of Everyday Utensils and Materials
- C. School, Home and Community SanitationCoughing and sneezingUse of toiletsKeeping home and school grounds clean

IX. Safety First.

- A. Common Home, Community and School Accidents
 Fallen wires
 Tripping, pushing, etc.
 Foreign objects in nose, mouth, ear, and eye.
 Ice on walks
- B. Fire Prevention and Protection
- C. Industries and Accident Prevention Safety first campaigns
- D. Protection of Others

X. First Aid.

- A. General Procedure in Emergencies
- B. Practical Demonstrations
- C. Poisons and Antidotes
 Poisonous plants

XI. Contagious and Infectious Diseases.

- A. Common Carriers
- B. Disease Control
- C. Importance and Results
 Dangers

FOURTH GRADE

(Continue Improvement in Items of Previous Grades)

- A. Cleanliness
 - Body cleanliness within and without
- B. Care of Mouth and Teeth
 Care of temporary and permanent teeth
 Building strong teeth
- C. Care of Special Senses
 Structures and function
- D. Elimination
- E. Skin Structure and Care

II. Mental and Social Health.

- A. Desirable Mental Traits
- B. Active Interest in Surroundings
- C. Completion of Tasks and Self-Confidence
- D. Participation in Plays and Games

III. Nutrition.

- A. Relation of Food to Growth
- B. Diet for Children
- C. Food Habits
- D. Evil Effects of Narcotics and Alcohols

IV. Rest, Air, and Sunshine.

- A. Necessity to Life
- B. Sleep

Good sleep habits

Quiet play before sleep
Regularity
Low pillow

- C. Rest Before and After Eating
- D. Ventilation

V. Clothing.

- A. Selection of Clothing
 Properly fitting shoes
- B. Care of Clothing
 Health values of washing and ironing
- C. Removal of Inappropriate Clothing

VI. Posture.

- A. Meaning and Importance

 To health and success in life
- B. Correct Standing and Sitting Criteria of Correct Posture
- C. Relation to Good School Work
- D. Causes and Effects of Posture

VII. Exercise.

- A. Supervised Play
- B. Comparative Values of Indoor and Outdoor
- C. Health Habits and Physical Efficiency

VIII. Sanitation

- A. Safe Milk and Water How to obtain
- B. Use of Everyday Utensils and Materials
- C. School, Home and Community Sanitation

IX. Safety First.

- A. Common Home, Community, and School Accidents
- B. Prevention and Protection
- C. Industries and Accident Prevention
- D. Protection of Others

X. First Aid.

- A. General Procedure in Emergencies
- B. Practical Demonstrations
- C. Poisons and Antidotes

XI. Contagious and Infectious Diseases

- A. Common Carriers
- B. Disease Control

Care and prevention of colds

C. Importance and Results

FIFTH GRADE

(Continue Improvement in Items of Previous Grades)

- I. Personal Hygiene
 - A. Cleanliness

Disease germs

B. Care of Mouth and Teeth
Structure of teeth
Causes and effects of decay

D. Elimination

Proper terms or vocabulary

E. Skin Structure and Care

Pores

Dermis and epidermis
Functions

- II. Mental and Social Health.
 - A. Desirable Mental Traits

 Brain structure and habits of health

 Effects of narcotics and alcohol
 - B. Active Interest in Surroundings
 Proper companions
 - C. Completion of Tasks and Self-Confidence
 - D. Participation in Plays and Games Sportsmanship

III. Nutrition.

A. Relation of Food to Growth
Body builders
Energy givers
Vitamins

B. Diet for Children

Balanced diet

- C. Food Habits
- D. Meal Planning

Variety of foods

Menus for each meal

School lunches

E. Promotion of Digestion

General process in mouth and stomach

F. Cooking and Preservation

Sources of foods

Theory and methods

G. Nutrition and Economy

Relation of cost to food value

- H. Relation of Nutrition to Physiological Organs and Functions
- I. Evil Effects of Narcotics and Alcohol

Character

Health

Growth

Mind

Bones and muscles

IV. Rest, Air, and Sunshine.

A. Necessity to Life

Oxygen

Sunshine related to growth and health

B. Sleep

Effects of loss of

Necessity of

- C. Rest Before and After Eating
- D. Ventilation

Fireplace

Windows

Doors

E. Passive and Active Rest

F. Relation to Physiological Organs and Functions
Function of lungs
Tonsils and adenoids

V. Clothing.

A. Purposes

Body temperature and health

- B. Selection of Clothing
 Properties of cotton, flax, and wool
 Relative costs
- C. Care of Clothing
 Aesthetic aspects
- D. Removal of Inappropriate Clothing

VI. Posture.

- A. Meaning and Importance
- B. Correct Standing and Sitting
- C. Relation to Good School Work
- D. Causes and Effects
 Structural effects
 Effects on digestion
- E. Rest and Posture

VII. Exercise

- A. Supervised Play
- B. Comparative Values of Indoor and Outdoor Play To blood, skin, and organs
- C. Health Habits and Physical Efficiency Exercise and posture
- D. Fatigue and Over-fatigue Resistance to disease
- E. Causes and Treatment of Overweight and Underweight

Malnutrition

Corrective exercise

VIII. Sanitation.

A. Safe Milk and Water

Local supply and inspection Care of and how to destroy germs in

- B. Use of Everyday Utensils and Materials
- C. School, Home and Community Sanitation Clean up campaigns Nature and purpose

IX. Safety First.

A. Common Home, Community, and School Accidents

Traffic rules

Electric fixtures and conductors

Water

Firearms

B. Fire Prevention and Protection

Use of alarms

Gasoline, kerosene, and explosives

Forest fires

- C. Industries and Accident Prevention
- D. Protection of Others

X. First Aid.

- A. General Procedure in Emergencies
- B. Practical Demonstrations

Hemorrhage

Insect bites and stings

Cuts and wounds

Choking

Smothering fire in clothing

Burns and scalds

- C. Bandaging
- D. Poisons and Antidotes

XI. Contagious and Infectious Diseases.

A. Common Carriers

Impure air

- B. Disease Control
 - Education versus police control
- C. Laws and Service
- D. Importance and Results

SIXTH GRADE

(Continue Improvement in Items of Previous Grades)

- I. Personal Hygiene.
 - A. Cleanliness
 - B. Care of Mouth and Teeth
 - C. Care of Special Senses
 - D. Elimination

Intestines

Kidneys

Skin

Lungs

- E. Skin Structure and Care
- II. Mental and Social Health.
 - A. Desirable Mental Traits

 Nervous systems and training the mind.
 - B. Active Interest in Surroundings
 - C. Completion of Tasks and Self-Confidence
 - D. Participation in Plays and Games

III. Nutrition.

- A. Relation of Food to Growth Graphic representations
- B. Diet for Children
- C. Food Habits
- D. Promotion of Digestion
- E. Meal Planning
- F. Cooking and Preservation
- G. Nutrition and Economy

H. Relation of Nutrition to Physiological Organs and Functions

Digestive system

How to have a good digestive system

I. Evil Effects of Narcotics and Alcohol Laws

IV. Rest, Air, and Sunshine.

- A. Necessity to Life
- B. Sleep
- C. Rest Before and After Eating
- D. Ventilation
- E. Passive and Active Rest
- F. Relation to Physiological Organs and Functions

V. Clothing.

- A. Purposes
- B. Selection of Clothing Costume designing
- C. Care of Clothing
- D. Removal of Inappropriate Clothing

VI. Posture.

- A. Meaning and Importance
- B. Correct Standing and Sitting
- C. Relation to Good School Work
- D. Causes and Effects
 Eyesight
- E. Rest and Posture

VII. Exercise.

- A Supervised Play
- B. Comparative Values of Indoor and Outdoor Play
- C. Health Habits and Physical Efficiency
- D. Fatigue and Over-fatigue
- E. Causes and Treatment of Overweight and Underweight

VIII. Sanitation.

A. Safe Milk and Water

Laws and service

- B. Use of Everyday Utensils and Materials
- C. School, Home and Community Sanitation

City water and sewage plants

Local service

Mosquitoes and flies

Garbage disposal

IX. Safety First.

- A. Common Home, Community, and School Accidents
- B. Fire Prevention and Protection
- C. Industries and Accident Prevention

Factory accidents

Preventive measures

Insurance

Safety devices on railroads and highways

D. Protection of Others

X. First Aid.

- A. General Procedure in Emergencies
- B. Practical Demonstrations

Injuries to joints and limbs

Water accidents

C. Bandaging

Bandaging all parts of body

D Poisons and Antidotes

Digestive and nervous reactions

XI. Contagious and Infectious Diseases.

- A. Common Carriers
- B. Disease Control

Relation of alcohol and narcotics

Fatigue and disease

C. Laws and Service

Vaccination

Health boards and doctors Local and state laws

XII. Physiology (Intensive Study)

- A. Framework of the Body
- B. Digestion
- C. Excretion
- D. Respiration
- E. Circulation
- F. Nervous System
- G. Height and Weight

SEVENTH GRADE AND EIGHTH GRADE

(Continue Improvement in Items of Previous Grades)

- I. Personal Hygiene.
 - A. Cleanliness
 - B. Care of Mouth and Teeth
 - C. Care of Special Senses
 Defects
 - D. Elimination
 - E. Skin Structure and Care Skin diseases Cosmetics

II. Mental and Social Health.

- A. Desirable Mental Traits
 Concentration
- B. Active Interest in Surroundings
- C. Completion of Tasks and Self-Confidence Assumption of responsibilities
- D. Participation in Plays and Games

III. Nutrition.

- A. Relation of Food to Growth
- B. Diet for Children

- C. Food Habits
- D. Promotion of Digestion
- E. Meal Planning

Attractive meals

Dieting requirements for different ages

Yardstick of meals

- F Cooking and Preservation
- G. Nutrition and Economy

Food Budgets

- H. Relation of Nutrition to Physiological Organs and Functions
- I. Evil Effects of Narcotics and Alcohol

Vital statistics

Pure food laws

Dry laws

Anti-narcotic acts

IV. Rest, Air, and Sunshine.

- A. Necessity to Life
- B. Sleep

Night clothes

- C. Rest Before and After Eating
- D. Ventilation

Causes and effects of air pollution

- E. Passive and Active Rest
- F. Relation to Physiological Organs and Functions

V. Clothing.

- A. Purposes
- B. Selection of Clothing

Suitable to personality

Selection for other members of family

C. Care of Clothing

Packing

D. Removal of Inappropriate Clothing

VI. Posture.

- A. Meaning and Importance
- B. Correct Standing and Sitting
- C. Relation to Good School Work
- D. Causes and Effects
- E. Rest and Posture

VII. Exercise.

- A. Supervised Play
- B. Comparative Values of Indoor and Outdoor Play
- C. Health Habits and Physical Efficiency
- D. Fatigue and Over Fatigue
- E. Causes and Treatment of Overweight and Underweight

VIII. Sanitation.

- A. Safe Milk and Water

 Local and state regulations

 Vital statistics
- B. Use of Everyday Utensils and Materials
- C. School, Home, and Community Sanitation Location of home and school Construction of homes Backyards and alleys

IX. Safety First.

- A. Common Home, Community, and School Accidents
- B. Fire Prevention and Protection Forest fires
- C. Industries and Accident Prevention
- D. Protection of Others

X. First Aid.

- A. General Procedure in Emergencies
- B. Practical Demonstrations
 Artificial respiration

Removal of foreign objects from eye, ear, nose and throat

C. Bandaging

Sterilization of materials

D. Poisons and Antidotes
Reactions of bases and acids

XI. Contagious and Infectious Diseases.

- A. Common Carriers
- B. Disease Control
 Quarantine
- C. Laws and Service
- D. Importance and Results

XII. Physiology (Review, Application, and Correlation)

- A. Framework of Body
- B. Digestion
- C. Excretion
- D. Respiration
- E. Circulation
- F. Nervous System
- G. Height and Weight

REGULATIONS OF STATE BOARD OF HEALTH PERTAINING TO PUBLIC SCHOOLS

COMMUNICABLE DISEASES

The Control of Communicable Diseases

Section 5. DUTIES OF TEACHERS. Whenever any case, suspected case, or carrier, of communicable disease, shall occur in this State, it shall be the duty of the principal or teacher of any public, private, or parochial school, if the infected person, carrier, any member of his household, or a non-immune contact, is in attendance upon said school, immediately to institute the following measures for the protection of the public health:

Exclude from school the infected person, carrier, members of his household, and non-immune contacts, who are in attendance upon said school, until written permission for their return is received from the health officer or his agent.

The Reporting of Notifiable Diseases And Accidents

Section 5. Every teacher and every person in charge of any public or private school, including Sunday schools, shall report immediately to the local health officer within whose jurisdiction the case occurs each and every case which he or she knows or suspects to be a case of a notifiable disease in any person attending or employed in his or her school.

VACCINATION OF SCHOOL CHILDREN

Section 13. Vaccination.—The State Department of Public Welfare shall make suitable provision for the inoculation of the inhabitants of this State with cowpox vaccine, under the direction of county health officers.

(Ch. 145, S. L. 1921)

Section 28. Vaccination of Children.—It shall be the duty of the school superintendent of each county to see that all children in his county of school age, are vaccinated against smallpox, and to that end each teacher of a public school shall see that the children under his control have been successfully vaccinated, and it shall be unlawful for any child to attend school or for any teacher to allow such child within any school house unless so vaccinated, or showing proper certificate that it has been so vaccinated. Such teacher shall make report of the number of children whom he has caused to be vaccinated, to the county school superintendent at the beginning of the school year, and as often thereafter as he may deem necessary, together with the report of the names of any parents who refuse to allow their children to be vaccinated, and any person who shall refuse or neglect to have his or her children vaccinated according to the law shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined not less than ten dollars (\$10.00) nor more than one hundred dollars (\$100.-00), or imprisoned in the county jail not exceeding one (Ch. 85, S. L. 1919) hundred (100) days.

Section 14. Vaccination of School Children.—The vaccination required in the next preceding section may be done by any licensed physician or under his direction, and shall be paid for by the parents of such children, when able to do so, but in case of their inability to pay for the same by reason of poverty, then such vaccination shall be done by the County Health Officer or under his direction, and shall be paid for by the county or municipal board of education. Provided, that inoculation for the prevention of small-pox by the internal use of variolinum taken under the direction and care of a licensed physician may take the place of vaccination with cowpox where inoculation by vaccination is required by this act. Provided, further, that no health officer who is employed to give his entire time to the duties of his office shall receive any fee or payment other

than his regular salary for performing the work required by this section, but in such case the Board of Education shall defray the expenses for vaccine and other supplies incurred by the county health officer in carrying out the provisions of this section.

(Ch. 145, S. L. 1921)

Section 30. Exemption from Vaccination.—Any minor child, through its parent or guardian, may file with the health authority charged with the duty of enforcing the vaccination laws, the certificate of a duly licensed and practicing physician stating that the physical condition of such child is at the time, such that vaccination would seriously endanger the life or health of such child, and thereupon such child shall be exempt from the provision of Sections 28 and 29 of this act, but shall not be exempt from the quarantine laws, rules and regulations.

(Ch. 85, S. L. 1919)

CIRCULATION OF HEALTH MATERIALS

Bulletins pertaining to Public Health Laws and Regulations of State Board of Public Health may be secured from the Bureau of Public Health, Santa Fe. Professional books relative to Health and Hygiene may also be secured for a limited time from the Public Health Library, Bureau of Public Health, Santa Fe.

SYMPTOMS WHICH SHOULD MAKE ONE SUSPICIOUS OF COMMENCING CONTAGIOUS DISEASE

- 1. Disinclination to play or study
- 2. Unusual "tired feeling"
- 3. Drowsiness
- 4. Lack-lustre eyes
- 5. Cheeks flushed or pallid
- 6. Chills
- 7. Vomiting
- 8. Cough

- 9. Sweating
- 10, Eruption on skin
- 11. Discharges from nose, throat, or ears
- 12. Swelling in neck
- 13. Eyes red or inflamed
- 14. Eyes discharging
- 15. Sore throat
- 16. Fever

A CHART TO ASSIST TEACHERS IN IDENTIFYING CONTAGIOUS DISEASE OF CHILDREN

Disease	Early symptoms	Site of eruption	Character of erup- tion or symptoms
Scarlet fever	Sore throat, high fever, chills, vomiting, swelling of neck glands		Fine scarlet points, soon running together to form a scarlet rash
Diphtheria	Sore throat, headache, tender at angle of jaw		Dirty white mem- brance in throat; sometimes in nose
Measles	Running nose, inflamed eyes, fever, cough	Face, spreading downward over body	Small, dark-pink spots tending to group themselves in crescents
Chickenpox	Slight fever, some- times headache	Chest, back and body generally	Successive crops of watery pimples that form scabs
Mumps		At angle of jaw, sometimes under jaw	
Whooping cough	Cough, growing worse hard and ringing		Spasmodic cough followed by crow on taking breath, vomiting
Smallpox	ing, intense headache	Face, neck, trunk, limbs, especially toward hands and feet	pustular, with pit in
German measles	Swelling of neck glands, and tender- ness, fever, sore throat	Face and chest, spreading rapidly	

GRADE ORGANIZATION

FIRST GRADE

Suggested Weekly Time Allotments

The time allotted per week to health, physical, and safety education should be divided approximately as follows: recess, including play, 150 minutes; physical training, 90; and hygiene, 25. In case the afternoon session is one in which the children of the grade are dismissed before recess, the time allotted to it should be reduced accordingly.

Suggestive Illustrations of Teaching

The playful spirit predominates in the health work with first grade children. If all health teaching is based on the natural activities of the child, he will form the proper habits and attitudes through doing rather than hearing.

The following illustrations are merely suggestive and may be revised or added to, to suit the immediate situation. See also illustrations for second and third grades.

Weighing and Measuring

Each child should be weighed once a month and his height taken twice a year. Either individual or class charts or both should be kept showing the weight and height of each child together with the normal weight and height.

It is suggested that teachers make a practice of sending cards regularly to parents showing the child's weight and height on one side and the "Rules of the Game" on the other side.

In rural schools where scales are not available the children can be encouraged to weigh whenever they go to town and report that weight to the teacher.

Devices for stimulating interest in weight:

- 1. Each child has an individual clock drawn on card-board. On the inner circle arrange the pounds in order, similar to the numbers on the face of a clock. A red arrow hand points to the desired weight and a movable blue arrow hand rises from a slit in the card to indicate actual weight. The adjustable hand is moved on weighing day. A team contest can be arranged to see which team can win the greatest number of pounds.
- 2. Each child cuts out of paper a flight of stairs. Color one of the stairs to indicate normal weight. A paper figure, representing the child's weight, is moved up or down as the scale indicates, showing his relation to normal.

(Instructor Plan Book, Vol. I., F. A. Owen Pub. Co., Dansville, N. Y.)

Rules of the Game

Approach for launching the health work:

"How many of you would like to learn to play a new game? A game that all the children in America are going to play? A game that even Father and Mother will join us in playing? All who wish to play hold up your hands." "What is it?" "It is a health game." "I believe all of you know something about it already, so I am going to see if you can tell us how to begin after I tell you a story." Tell the story of the Little Toy Soldier. (This is produced in full under Stories.) "Now who can tell me one rule for the Health Game?" "Yes, John, to be clean is one of the rules."

Each day a new story may be told from which another rule is learned. As rules are evolved they may be written on the board by the teacher in terse, simple language. When the complete set is finished a poster may be made with the rules plainly written and illustrated. This is put on the wall for reference. Flash cards may be made and matched with the chart for a reading lesson. The enthusiasm for

the game will be kept up by the awarding of a gold star daily to each child who has a perfect record at morning inspection. (A Health Education Procedure: National Tuberculosis Association.)

These rules should be based on the following points as summarized by the American Child Health Association:

- 1. A full bath more than once a week.
- 2 Brushing the teeth at least once every day.
- 3. Sleeping long hours with windows open.
- 4. Drinking as much milk as possible but no coffee or tea.
- 5. Eating some vegetable or fruit every day.
- 6. Drinking at least four glasses of water a day.
- 7. Playing a part of every day out of doors.
- 8. A bowel movement every morning.

Devices for emphasizing these health habits.

- 1. On one end of a card put a picture of the rising sun and on the other end a picture of a candle. In the space between the sun and the candle the child is permitted to draw toothbrush for each time that he brushed his teeth during the day.
- 2. Put on the board, one for each row, a picture of a smiling face with a large toothless mouth. In the mouth there should be room for twenty teeth. Each day for a month the rows having 100 per cent clean teeth might add a tooth to the drawing.
- 3. Each day for a week give each child a picture of a milk bottle marked off in fourths. He may color that part of the bottle which represents the amount of milk he drank the day before.
- 4. Permit the child to paste on his record card a cutout picture of a glass of milk, one for each glass that he drank during the previous day.
- 5. Let the child paste pieces of paper representing cakes of soap on the record card when he took a bath or

came to school with clean hands and reported washing them before each meal.

- 6. One school kept a record on the board called "The Candy Table." On this record were the names of all the children who were eligible to sit at the table because they had not eaten candy between meals the previous day.
- 7. Many teachers have difficulty in discussing the habit of regular elimination. There should be no cause for embarassment. One teacher showed the children a two-faced card on one side of which was a picture of a disagreeable man called Mr. Grumpy. On the other side of the card was the picture of a happy man whom she called Mr. Smiles. She explained to the children that regular habits of using the toilet help to make it easy to be happy. She also told them how drinking plenty of water keeps them clean inside. Each morning she asked each child how many had "remembered." By this she meant had remembered to drink a glass of water when they got up and had gone to the toilet before coming to school. If more than fifty percent had remembered she hung up the card for that day with Mr. Smiles facing out, if not Mr. Grumpy faced them for the day. Gradually she increased the percentage which was necessary to have Mr. Smiles face out.

(The Class Room Teacher, Vol. V, Class Room Teacher, Inc., Chicago, Illinois.)

- 8. Make a chart with pictures of vegetables pasted at the top. The children who ate any vegetable may vote for it that day. The vegetable most frequently eaten wins the race. The teacher should "Talk up" good vegetables that are not popular.
- 9. Make charts for different vegetables as spinach or carrots etc., with pictures at the top and children's names in a list on the side. Each day that a child has eaten a certain vegetable he puts a mark by his name on the chart for that vegetable. At the end of a month the children who have the largest number of marks get gold stars.

- 10. Have the children make booklets and paste in them pictures of vegetables they have learned to eat or have them make booklets containing pictures of a model breakfast.
- 11 Make posters and sleep charts to encourage sufficient sleep.
- 12. Make a chart with two windows; one drawn closed and one cut out with a curtain of goods to show how his looks when he sleeps. It is a great honor to draw a line through a name and transfer it to the open window.
- 13. Get two plants growing in cans. Put one in a dark place and the other in the sunshine. Note the effect of the sunshine on all living things.
- 14 Secure two milk bottles. Paste a picture of a healthy boy on one and a rosy-cheeked girl on the other. The names of the girls who drink milk every day and who have not drunk tea or coffee should be placed in the bottle with the girl's picture. The boys who meet the same requirements place their names in the boy's bottle. Have a race between the boys and girls to see which group can get all names in the bottle. Check each morning.

The following lesson on posture was sent in by a New Mexico teacher.

I. Teacher's Aim:

To instill in the child a desire for correct posture through games, music and imitation, in order to improve his health and his appearance.

II. Children's Aim:

A desire to learn correct posture

- 1. For health's sake
- 2. For good appearance

III. Preparation:

Teacher gave short talk on the proper way to sit and stand. In order to arouse the children's interest we talked

of a circus which had just been to town. Different children told of actions of the animals and people.

IV. Subject Matter:

Corrective Posture

V. Procedure

Results

- A. Imitation of animals and people as seen at circus
 - 1. Roar like lion
 - 2. Play elephant
 Elephant drinks
 water from bucket
 and then takes deep
 breath
 - 3. Giraffe
 - 4. Tight Rope Walker
- B. Jack in Box
- C. Clay Modeling
- D. Making Posters

- 1. Fills lungs with air, squares and straightens shoulders
- 2. Corrective tug on leg muscles
 Breathe deeply
- 3. General posture helped by standing straight and tall like Giraffe
- 4. Gives balance and is good for flat feet
- B. Children sit and stand
- C. Visualizes good posture
- D. Illustrates correct posture

Summary: The children watched the posture of their class mates in school and on play ground and made reports on the children who had good posture and those who had bad posture.

The following lesson on use of the tooth brush was sent in by a New Mexico teacher.

Use of the Tooth Brush

I. Teacher's Preparation:

Order sample tube of tooth paste for each child from Colgate Company. Be able to tell story "Mr. Tooth Brush and Its Keeper." Know song and exercises to be taught. Have hektograph copies of a child brushing the teeth. Let children color. Give each child reminder card which comes with samples.

II. Aims:

A. The teacher's aim:

- 1. Aim of course: to establish correct health habits, learn simple rules and develop an attitude of self-control and feeling of responsibility for pupil's own health conduct.
- 2. Aim of lesson: to establish habit of brushing teeth three times daily and give pupils knowledge of necessity of caring for teeth
 - a. In order to have good health;
 - b. In order to have good appearance.

B. The pupil's aim:

To get a clear understanding of why, how, when to use a tooth brush.

Motivation:

Question pupils about their toys given them as presents. Do they take care of their gifts? Talk about our teeth as a gift to us to use and take care of. Free expression from pupils on care of their useful gifts.

Teacher tells story "Mr. Tooth Brush and Its Keeper"—Primary Educator.

Riddle by instructor concerning twenty-four white horses on a red hill.

III. Subject Matter:

A. Why use a tooth brush?

B. How to use a tooth brush.

IV. Procedure:

- A. Give facts about how teeth aid digestion.
- B. Let pupils know causes for decay and toothache.
- C. Draw on board a tooth and give simple facts concerning its nerves and roots and how it gradually decays.
- D. With poster illustrations show difference in children with teeth well cared for and those whose teeth have not been brushed daily. With comments on children who do have pretty teeth and with colored illustrations of wellkept teeth, encourage pupils to strive for strong beautiful, white teeth.
- E. Request pupils to bring tooth brush to school for tooth brush drill. Pupils follow instructor in correct method of brushing teeth with exercises and drills. Demonstrations of how to

C. When to use a tooth brush.

- brush teeth correctly given with music by victrola record "Round and Round the Village."

 Show pictures of children brushing teeth correctly on health posters.
- F. Let pupils know why it is necessary to brush teeth after each meal.
- G. Pupils sing "Tooth Brush Song."— Normal Instructor.

V. Check and Results:

At close of class period give each pupil a sample package of tooth paste sent out by Colgate Company. Give each child a reminder coloring card to tack on wall in his home. Encourage and firmly establish habits of brushing teeth daily by questioning pupils each day about their using tooth paste given them. Let each child paste gold star by his name on health chart each day he brushes his teeth three times. Pupils color hektograph copies of tooth posters "Brush Your Teeth Daily." Let each child check up on his classmates and make reports.

Daily Inspection

The daily inspection should be made a happy time where children who pass are praised and ones who do not are encouraged to improve next time. Care should always be taken not to humiliate a child before his classmates. There should be enough variation in method to avoid monotony.

Suggested conditions to look for in inspection are:

- 1. Clean hands, face, neck, ears and nails.
- 2. Well brushed hair.
- 3. Clothing neat and clean.
- 4. Clean handkerchiefs (Have on hand a supply of paper napkins or squares of cheesecloth.)
- 5. Wraps removed.

Devices to stimulate interest in inspection:

- 1. Make something each month which represents the feeling of the month. For October a Jack O'Lantern is appropriate. When every one in the room meets your requirements for cleanliness, allow the lantern to be placed in the room. If many fail keep it put away for the day.
- 2. Place enormous cardboard letters spelling HEALTH across one side of the room. In these have holes punched and from some of the letters hang little white tags bearing names. Every Monday the race begins. All those who have perfect inspection reports hook their tags on H. On Tuesday those perfect can progress to E, on Wednesday to A and so on. Those in best training, passing inspection on Friday, win the race and get a gold star on the last H. In this contest girls may compete against boys.
- 3. Construct a Health Town on the sand table. Each child can make his own house using construction paper 6 inches square and folding the sixteen squares. Children who do not pass inspection have to move away from the Health Town.

Games and Play

Outdoor games:

1. Dog and Rabbits

This is suitable for a large number of players. They stand in groups of three clasping hands to form a circle or a tree. The other players are the rabbits, one inside each

tree. An extra player is the dog who tries to catch the rabbits when exchanging places with each other. No two rabbits may lodge in the same tree. Any dog may become a rabbit by dodging into the empty tree if he can, leaving the slow player to be the dog as the game continues.

2. Cats and Mice.

This is an excellent game for mid-morning exercise when the weather makes it possible for the class to go out doors for about five minutes. Every child can participate. The children form a circle and are numbered one, two, one, two, all around the circle. Those numbered one who are cats step inside the circles facing those numbered two who are the mice. At a given signal from the teacher the cats try to catch the mice who run away as fast as they can. When they all are caught they change places, the ones becoming mice and the twos cats and the game continues as before.

Other suggested outdoor games are:

1. Charlie Over the Water; 2. Drop the Handkerchief; 3. Follow the Leader; 4. Slap Jack; 5. Midnight; 6. London Bridge; 7. Bird Catcher; 8. Frog in the Middle; 9. Crossing the Brook.

Indoor games:

1. Changing Seats.

All the players are seated. The leader gives a command such as "change right," "change left," all players moving in the direction of the command. The players who are forced into the aisle, next to the sides or rear walls or front of room, run to the vacant seats at the opposite side, rear or front of room, This continues until all pupils are back in their original seats.

Other suggested indoor games are:

- 1. Musical Choirs; 2. Hide the Thimble; 3. I Say Stoop;
- 4. Good Morning; 5. Old Hen and Chickens; 6. Poor Pussy;
- 7. Relays; 8. Squirrel and Nut; 9. Button, Button.

Suggested list of singing games:

- 1. How D'ye Do My Partner, Victor Record No. 17568
- 2. The Farmer in the Dell; 3. German Clap Dance;
- 5. Danish Dance of Greeting, Victor Record No. 17158
- 6. Did You Ever See a Lassie; 7. Jolly is the Miller, Victor Record No. 17567
- 8. Kinderpolka, Victor Record No. 17327
- 9. London Bridge is Falling Down; 10. Pussy, Cat, Pussy Cat;
- 11. Shoemaker's Dance, Victor Record No. 17084
- 12. See Saw; 13. Ten Little Indians; 14. The Muffin Man;
- 15. The Mulberry Bush, with variations, such as, This is the way I wash my face, brush my teeth, etc.

Fundamental rhythms are running, skipping, marching, galloping, rocking the baby, imitating ducks, high stepping horses, hobby horses, etc. See suggestions for rhythmic work in second grade.

Safety games:

1. A Traffic Game.

A street crossing is marked off on the floor with chalk or the front of the room may represent the main thorough-fare with aisles as side streets. One child is chosen as the traffic officer and the other children represent automobiles, street cars, motor cycles, and pedestrians. The officer gives the signal and the traffic obeys. The children who follow the signals most promptly and accurately qualify to act as traffic officers in turn. A stop and go sign and a policeman's whistle give an added touch of reality and familiarize

the children with their use and meaning. Some of the children may represent fathers and mothers taking tiny children across the street or old, blind and crippled people who need help. We should begin right in the first grade to develop a spirit of helpfulness and service to others.

2. The Lost Game.

The purpose is to drill children in their addresses, telephone numbers and a description of the location of their homes. The lost child appeals to the friendly policeman for help. The officer asks the child's name and address. He may describe something near his home, such as a church, park, store or public building. The policeman then takes the child home to his parents or if the telephone number is given he may take the child to the police station and send for the parents.

Story Plays:

In the first two grades story plays should take the place of formal gymnastics. The teacher suggests the movements which are imitative of well known and popular activities. These can be worked out by the children in their own way. No formal commands should be given. The purpose is to bring into the lesson breathing and exercise of arm, leg and trunk.

1. Trees.

Play all are tall trees; hands stretched straight up. Listen to wind in trees; all breathe in and out together. Leaves of trees falling; hands come slowly down, fingers wiggling. Trees swaying in gentle breeze; bodies twist from side to side. Trees bending before strong wind; bodies bend.

2. Building a house.

a. Run across field; each two rows run around one row of desks.

- b. Digging cellar: (a) break up ground with pickaxe; one foot forward, swing pickaxe high over one shoulder and then to ground: (b) shovel dirt; throw over right (left) shoulder.
 - c. Climb out of cellar; lift knees high, 6 or 8 steps.
- d. Put lumber in place. Drive nails. Reach high for some boards.
- e. Painting house; stoop, dip brush, reach high up and make strokes from side to side in front of body, stooping as they near end. Dip brush in pail etc.
 - f. Run home. Jump across brook.
 - g. Breathing; smell dinner cooking.

Other suggested plays are picking apples, building fires, gathering cones and leaves, Santa Claus and reindeer, washing clothes, cowboys, Indians, skating and the fire engine.

Correlation with Other Subjects

Refer to suggestions for correlation under chapter on methods.

Reading:

Simple stories with appropriate pictures are put on the bulletin board as - Baby is drinking milk. She likes good milk.

Junior Red Cross activities furnished the material for the following experience chart composed by first grade children.

How We Got Our Red Cross Pins

We joined the Red Cross.

We brought some pennies.

We all did something to earn our pennies.

The girls helped their mothers.

The boys helped their fathers.

Our money will help poor and sick people.

Silent reading seat work:

- 1. Child matches pictures of fruits, vegetables and other wholesome foods with cards on which the names are printed, as, eggs with the picture of eggs.
- 2. Child has sheet of paper with vegetables outlined. He follows printed directions as,

Color the beets red.

Color the potatotes brown.

Color the spinach green.

Language and Literature:

- 1. The children can compose riddles as, I am white. I am good for boys and girls. I come from the cow. What am I?
- 2. Conversation lessons based on topics similar to the following. What shall we give our pets to eat? What kind of clothes do we wear in cold weather? Where do milk, eggs, etc. come from?
- 3. The following health stories are suggested. Many others may be used also. 1. The Ambitious Apple. 2. The Old Apple Tree. 3. Dust Under the Rug. 4. How the Singing Water Got into the Tub. 5. The Story Milk Told Me. 6. How the Beans Came Up. 7. The Wake Up Story. 8. The Pig Brother. 9. The Boy and His Pets. 10. The Story of a Nickel. 11. The Boy who Forgot to Wash his Face. 12. Old Man Rabbit's Thanksgiving Dinner.

The Little Toy Soldier.

He was the bravest, finest Toy Soldier in all the shop, and he was wonderfully dressed. You never, never could guess what color his trousers were. No, not khaki, although our soldiers boys dress that way, nor scarlet, nor green. They were blue with nice black stripes along the sides. And his coat was green with beautiful shiny gold buttons on it. His little round hat sat on one side of his head and was fastened under his chin with a strap. You never, never could

guess what was under his nose, a tiny black mustache that curled tight at the ends. And how do you thing his mouth was painted? In a smile. And he smiled and smiled all the while.

One day a big man came into the store and took him away to live in a house with a little boy named Charles. The little Toy Soldier liked it there the first day, but when night came, the little mother said, "Did you brush your teeth Charles?" "No, I don't want to brush my teeth. It is too much bother." And what do you think? Charles scowled and pouted.

"Well, well," said the little Toy Soldier, "I do not want to live with a little boy who doesn't want to brush his teeth."

He couldn't get away just then, but the next morning Charles left him on the front porch rail. He tumbled right down on the sidewalk below. A small boy named Harold came along, picked him up and played with him all day. That night at supper Harold's mother said, "Did you wash your hands, little son?"

"No, I don't want to wash my hands. Just little girls wash their hands all the time."

"Well, well," said the little Toy Soldier, "I am not going to live with a little boy that doesn't wash his hands before he eats."

He waited until the next day when Harold put him in his pocket and started to school. The little Toy Soldier dropped out of his pocket down to the curb below. He lay there awhile when James came along, picked him up and took him home.

At Lunch that day James said, "I want coffee, Mother." And what do you think? He drank a great big cup of black coffee. "Oh," said the little Toy Soldier, "I do not want to live with a little boy who drinks coffee." He was standing on the library table near the waste basket. He tumbled into it, was carried out with the waste paper and dumped into

a box at the rear of the house. A man came along with a wagon and took the paper and the little Toy Soldier to a factory. Here men were sorting the paper.

"See the little Toy Soldier," said one big man, "I shall take him home to my small son."

Now this little boy could not walk so very well because he had hurt his foot. He tried to be cheerful anyway and helped his mother prepare the evening meal. When his father came home he said, "Have you had a nice day, Son?" "Yes," said the little boy. "I can mark all my health chores tonight. and when I went to the store a man asked me the way to the depot. I tried to be polite when I told him."

"Well, well," said the little Toy Soldier, "This is the kind of boy I should like to live with. I believe I shall stay here all the time." I haven't heard, so I suppose he is still there. (From Health Training in Schools, National Tuberculosis Association.)

Rhymes and Songs:

There was an old woman who lived in a shoe Though she had many children, she knew what to do She fed them carrots and spinach green And healthier children you never have seen.

An apple round and red and sweet Its just the thing for me to eat, And prunes and dates and raisins too, Oh, any fruit at all will do.

(Tune - Yankee Doodle.)

The six best doctors anywhere And no one can deny it, Are sunshine, water, rest and air, Exercise and diet.

Chorus

The six will gladly you attend, If you are only willing,

Your minds they'll cheer, your ills they'll mend, And charge you not one shilling.

(Tune - Yankee Doodle.)

Mary's Cold. No. I.

Mary had a little cold It started in her head, And everywhere that Mary went The cold was sure to spread.

It followed her to school one day,
There wasn't any rule,
It made the children cough and sneeze,
To have that cold in school.

The teacher tried to drive it out, She tried hard but - kerchoo! It didn't do a bit of good For teacher caught it too.

Mary's Cold. No. II. (Same tune)

Mary had a little cold Which settled in her head But she was very careful And did not let it spread.

She sneezed into her handerchief She coughed into it too, She breathed fresh air into her lungs, She knew just what to do.

So Mary stopped the little cold Which started in her head. And no one caught it from her Or had to go to bed.

A Health - Habit Project

The following project was worked out in schools in Springfield, Mass., where there were many foreign born children. The interest of the children and the improvement made in their own health habits seemed to justify the work spent on it. The account is quoted.

In order to form good health habits with the new children we decided to construct in both kindergarten and first grade two rooms, a bed room and a bath room, which should be the home of a doll to be cared for by the children.

The walls of the rooms were constructed of sheetrock and papered, the bed room with brown oatmeal and the bath room with washable tile paper. The children of the kindergarten constructed the furniture for the bed room. This furniture was the right size for a sixteen inch doll. They made two rugs for the floor, a braided one and a woven one. The furniture for the bed room in the first grade was constructed by the grade auxiliary (atypical) boys and was large enough for a six year old child. The bedding was made by the second grade children and the fifth grade girls. Each bath room was furnished with tub, stool, table, towel rack and mirror. The floor was covered with a congoleum rug.

The children had been bringing in their dolls and they asked that they be allowed to leave them over night. When the rooms were ready we chose a doll that should occupy the room for a week at a time.

The question arose, "How shall we care for baby?" The children said, "Mother cares for baby at home and sometimes sister helps." "Why can't we be mothers and sisters?" A little boy asked, "Can't we be daddies?" This work of caring for the house and dolls was carried on by groups. One group did the work for two days in the kindergarten and one group for a week in the first grade. The leader of the group acted as mother and chose her helpers.

Our next problem was to decide what needed to be done

for the doll. "What does mother do for the baby in the morning?" Children decided that the doll should be bathed and dressed in clean clothes. Her teeth should be cleaned and her hair brushed. Since the dolls brought in by the children could not be washed, Shoenhut dolls were furnished by the school department. "What shall the doll be named?" Kindergarten children chose Priscilla, the first grade children "Gloria."

"Now Gloria is ready for breakfast. What shall we give her to eat?" (Discussion by teacher and children) Children in the first grade decided that since Gloria is three years old she should have for her breakfast orange juice, cooked cereal, toast, egg and milk. As the kindergarten doll is a baby, breakfast was not discussed.

"What does little sister like to do after breakfast?" Children says she wants to play out doors. Every child should play out doors part of every day. First grade doll goes out to play with toys. Kindergarten doll is taken for a ride in the carriage.

Little mother and sister do the house work. They make the bed which has been properly aired, sweep and dust the bed room, and clean the bath room.

Before dismissal, the children were asked what should be done with the doll for the night. She must be put to bed. "What must be done for her before she goes to bed?" She must be undressed, washed, and her teeth must be cleaned. Then her night gown must be put on and mother always tucks her in. The very last thing is to open the windows, because little children should sleep long hours with windows open.

After mother has put her child to bed, she hangs the dress on the clothes hanger, made by the fifth grade boys. The other clothes are carefully folded and placed on the back of the chair.

(Twenty-fifth Yearbook of the National Society for the Study of Education, Public School Publishing Company, Bloomington, Ill.) This project is especially adaptable to primary groups where children are just learning to speak English. Play houses may be made from packing boxes or orange crates or one corner of the room may be used as a play corner. Furniture may be made from match boxes covered with cloth.

GRADE OUTCOMES

I. Knowledges:

- A. Personal Hygiene and Sanitation:
 - 1. Cleanliness with the use of soap, wash cloth and towel when
 - a. Hands and face are washed.
 - b. Finger nails are cleaned.
 - c. Baths are taken at least twice a week.
 - d. Hair and scalp are washed.
 - 2. Brushing of teeth twice a day.
 - 3. Elimination of waste.
 - a. Time- immediately after breakfast.
 - b. Regularity at least once each day.
 - 4. Hands and face should be washed before eating.
 - 5. Individual comb and drinking cup should be used.
 - B. Nutrition, Rest, Air and Sunshine:
 - 1. Scales of weight should be used.
 - 2. Height and weight of each child should be taken.
 - 3. Each pupil should know what he does weigh and what he should weigh.
 - 4. That food which help children to grow.
 - a. Milk the best food.
 - b. Eggs.
 - c. Cereals.
 - d. Bread.
 - e. Fruits.
 - f. Vegetables.
 - 5. Foods to be eaten for
 - a. Breakfast
 - b. Lunch

- c. Dinner (Supper)
- 6. Water and milk should be served.
- 7. A growing child should have a quart of milk a day and from four to eight glasses of water a day.
- 8. Food placed before him should be cheerfully received.
- 9. Rest and sleep will make him grow and that he should
 - a. Sleep in a dark room.
 - b. Sleep with the windows open.
 - c. Sleep regularly.
 - d. Sleep $11\frac{1}{2}$ or 12 hours.
- 10. Fresh air and sunshine will make him grow.

C. Exercise and Posture:

- 1. Four hours should be spent in play, out of doors each day.
- 2. Playing with children.
- 3. Body should be held in correct position when standing or sitting.

D. Clothing:

- 1. Clothing should be neat and clean.
- 2. Clothing helps to keep us warm.
- 3. Heavier clothing should be worn in cold weather than warm.
- 4. Wet clothing is uncomfortable and should be removed.
- 5. Shoes should have low heels, broad toes and be comfortable.
- 6. Rubbers should be worn in wet weather.
- 7. Clothing should receive good care.
- 8. Clothing should have a certain place to be kept.
- E. Safety First, First Aid, Contageous and Infectious Diseases:
 - 1. A child for personal safety should know
 - a. His own name
 - b. Where he lives

- c. Name of parents
- d. Occupation of parents
- e. Where parents are employed
- 2. One should Stop! Look! Listen! before crossing street car or railroad tracks.
- 3. Dangers of matches, lamps, teasing animals, sharp instruments, running or playing on stairs, and standing on rocking chairs should be known.
- 4. Foreign objects being placed in mouth, nose or ears.
- 5. Importance of vaccination for smallpox and immunization for diptheria.

F. Mental and Social Health:

- 1. Happiness comes with
 - a. Obedience to parents and teachers.
 - b. Thoughtfulness of others.
 - c. Truthfulness at all times.
 - d. Cheerfulness and politeness.
- 2. Pets, flowers, grass, trees and other property should be cared for

II. Habits and Skills:

- A. In Personal Hygiene and Sanitation
 - 1. Washes hands and face before eating.
 - 2. Brushes teeth correctly twice a day.
 - 3. Brushes own hair.
 - 4. Uses own brush and comb.
 - 5. Uses handkerchief when needed.
 - 6. Helps to keep nails short and clean.
 - 7. Takes baths regularly.
 - 8. Makes proper and sanitary use of toilet.
 - 9. Does not put pencils, fingers or other undesirable objects in mouth, change food with others, or food picked up from ground, sidewalk, etc.
 - 10. Evacuates the bowls at least once daily.
- B. Nutrition, Rest, Air and Sunshine:
 - 1. Eats two kinds of vegetable daily.

- 2. Eats one kind of fruit daily.
- 3. Eats a cereal for breakfast.
- 4. Eats slowly.
- 5. Eats candy only after meals.
- 6. Takes one quart of milk daily.
- 7. Eats cheerfully the food given him.
- 8. Drinks milk and water regularly.
- 9. Does not drink tea or coffee.
- 10. Plays out of doors four hours a day in air and sunshine.
- 11. Sleeps with window open.
- 12. Has long and regular hours for sleep $(11\frac{1}{2})$ or 12 hours).
- 13. Sleeps in a dark room.

C. Exercise and Posture:

- 1. Plays out of doors four hours daily.
- 2. Plays with children.
- 3. Holds body in correct position in standing or sitting.
- 4. Holds book in correct position to avoid eye strain.

D. Clothing:

- 1. Wears proper clothing at night after removing the day clothing.
- 2. Puts on extra wraps when the cold days come.
- 3. Removes wraps indoors.
- 4. Removes rubbers when indoors.
- 5. Keeps stockings neat and clean.
- 6. Gives clothing proper care.

E. Safety First, First Aid, Contageous and Infectious Diseases

- 1. Obeys the safety rules by
 - a. Stops! Looks! Listens! before crossing street or railroad tracks.
 - b. Does not run or play on stairs.
 - c. Does not handle matches, lamps or sharp instruments.

- d. Does not stand on rocking chairs.
- e. Does not go where others are sick.
- f. Does not tease animals.
- g. Tries to be careful all the time, everywhere.

F. Mental and Social Health:

- 1. Is obedient to parents.
- 2. Helps with home duties.
- 3. Is truthful, courteous and obedient to others.
- 4. Participates agreeably in Plays and Games.

III. Attitudes.

A Personal Hygiene and Sanitation:

- 1. Enjoyment of
 - a. A bath.
 - b. Clean and neat hair.
 - c. Clean, fresh clothing.
 - d. Clean orderly home and school.
 - e. A clean handkerchief.

B Nutrition, Rest, Air and Sunshine:

- 1. Desirous of having the following foods:
 - a. Milk
 - b. Green vegetables.
 - c. Cereals.
 - d. Butter.
 - e. Eggs.
 - f. Fruits.
- 2. Enjoyment in sleeping with the window open.
- 3. Happiness in being out of doors in the air and sunshine.

C. Exercise:

- 1. Desire for active play with other children.
- 2. Enjoyment in games.
- 3. Consideration for others when playing.

D. Clothing:

- 1. Pride in new clothing.
- 2. Satisfaction with clothing selected.

- E. Safety First, First Aid, Contageous and Infectious Diseases.
 - 1. Enjoyment in going safely to and from school.
 - 2. Satisfaction in looking after the safety of others as he would want them to look after his safety.
 - 5. Responsibility in reporting dangers.
- F. Mental and Social Health:
 - 1. Happiness in the confidence parents and teachers place in him.
 - 2. Pleasure from doing right by being
 - a. Obedient
 - b. Courteous
 - c. Truthful
 - d. Cheerful

READING TABLE BOOKS

- Broadhurst, "The Animal Way," Cleanliness Institute, N. Y. Adelborg, "Clean Peter and the Children of Grubbylea," Longmans, Green & Co.
- Broadhurst, "All through the Day the Mother Goose Way." Lippencott.
- Broadhurst, "All through the Day the Looking Glass Way", Lippencott.
- Additional References for this grade are listed after the Third Grade References.

SECOND GRADE

Suggested Weekly Time Allotments

The time allotted per week to health, physical, and safety education should be divided approximately as follows: recess, including supervised play, 150 minutes; physical training, 90; and hygiene, 25.

Suggestive Illustrations of Teaching

The following illustrations are merely suggestive. The alert teacher will adapt them to the conditions in her grade and will add many other methods.

In all games and plays, particularly, the teacher will find abundant opportunity, to stress desirable mental traits.

See also suggestive illustrations for first and third grades.

Weighing and Measuring

- 1. Have each child cut from cardboard a measuring bar like the one on weighing scales. Put a red mark at the proper weight for that child. Use a movable marker to indicate the child's weight each month.
- 2. Let each child cut out an airplane or bring a picture of an airplane and write his name on it. Mark off three zones on a carboard hanging up in the room, one called "over weight," one "proper weight" and one "under weight" A pin holds the airplane in place. Each child strives to have his airplane flying in the proper zone.

Rules of the Game

The following is a specific lesson taken from "Nutrition and Health," published by Borden Co.

Subject: Living the Right Kind of Day

A. Make a drawing on the blackboard or heavy cardboard

of a large clock face about twenty inches in diameter. Cut out hands of black cardboard and attach them to center of clock face with brass paper fastener, so that they are movable.

- 1. Cut out pictures from magazine advertisements which depict the right health habits for every hour of the day. Examples: Sleep, exercise, open windows in school and bedroom, brushing teeth, breakfast, dinner, supper, bathing.
- B. Have children help arrange pictures around the clock.
 - 1. In margin by 7:30 put picture of a boy getting up.
 - 2. Following should be a picture of a boy brushing his teeth and washing.
 - 3. Eating breakfast, etc.
- C. A splendid time to review health habits.

Planning a good supper:

Discuss with the children what they eat for supper, then a model supper, such as:

Soup

Creamed meat or fish (not necessary for Second Grade)

Choose One I

Eggs

Cereal

Cooked vegetable or vegetable salad

Bread and butter

Milk or cocoa

Desert of stewed fruits or simple cookies and cake.

Make a supper poster of pictures cut from magazines. Play cafeteria. Each child orders a proper supper. Miscellaneous devices for teaching rules of the game:

1. Let the children cut booklets the shape of a big milk bottle, and paste in them pictures of good foods. They might write the name under the picture. Such a booklet might be used for illustrated facts about milk.

- 2. Form a health alphabet, letting the children write, draw or paste a picture of some good food for each letter, such as "apples" for "a", "bread" for "b", "carrots" for "c", "dates" for "d", "eggs" for "e", etc.
- 3. Have children draw an outline of a lunch pail. In it paste pictures or write or draw names of foods suitable for a school lunch.
- 4. Make a very large outline of a tooth on cardboard. Have the children find and cut out pictures of foods that teeth need and paste them on the tooth outline. (From Health Outline, Oklahoma City Tuberculosis Society).
- 5. Tell children to make clay models or draw pictures of a tooth brush, comb, bathtub, various fruits, vegetables, the number of glasses of milk or water that one should drink each day, etc.
 - 6. Teach the class how to make paper drinking cups.
- 7. Have children bring pictures of a healthy boy and an unhealthy boy and paste at the top of a sheet of paper. If pictures cannot be secured the words may be written instead. Underneath the proper pictures or words, the child pastes pictures or writes the names of foods and drinks that cause one to be healthy or unhealthy.
- 8. Tell children to draw a clock face and show the correct positions of the hands when it is time to go to bed.
 - 9. Teach that the curbstone says, "Stop, look and walk."
- 10. Have children observe street signs such as "slow," "turn right," "school slow," and the next day write as many of these as they can. Discuss meaning and dramatize.
- 11. Draw on the board a Hill of Health. Each child is represented by a picture of a boy or girl cut from a catalogue. When certain health rules are obeyed by a pupil the figure moves up the hill.
- 12. Have children cut from paper toy dishes, knives, forks, spoons, glasses and napkins and arrange them on desks in proper way for a meal.

DAILY INSPECTION

Arrange a health corner, containing a mirror, paper napkins for handkerchiefs, tooth picks to clean nails, sterile gauze, and mercurochrome. Then the children can get themselves ready for inspection, and first aid materials are at hand for slight injuries.

GAMES AND PLAYS

Play that the lungs are two balloons in the chest. Stand and fill them with good, fresh air.

Picking cherries is a game for a mid morning relief drill, to be used instead of formal calisthenics:

- (a) Wade through high grass to the cherry orchard. Swing pail in one hand, then in the other.
 - (b) Prop ladder against tree and climb up.
- (c) Reach above head to right and left, and pick the ripest cherries, putting them in the pail.
 - (d) Sit down on top of the ladder and eat some cherries.
 - (e) Climb down ladder with cherry pail on arm.
- (f) Run to another tree and jump as high as you can to reach the branches. Haul branch down with one hand, and pick with the other.
- (g) When pails are full, stoop down and pick up big leaves to put on top to keep cherries cool.
- (h) Run home. Stretch and draw deep breaths. (From Pennsylvania Course of Study in Health).

Other suggestions for relief games are: Going fishing; wake up, stretch, tiptoe out of house, dig bait, etc. Cleaning house: take out rugs, sweep floor, wash windows, etc.

After violent exercise, have children put their heads down on desks, imitating a rag doll. Be as limp as possible, letting arms and legs dangle.

Outdoor Games:

Fox and Chickens.

One player is the fox and one the mother hen. The

rest of the players are chickens and they form in line behind the mother hen, each one holding the waist of the one in front of him. The fox tries to catch the last chicken. The line of chickens tries to keep the mother hen between them and the fox, but the line must not be broken.

Catch Ball

The players form a circle. The teacher stands in the center with a basket ball or other soft ball. She throws the ball into the air, calling out the name of a pupil. The child designated runs in and tries to catch the ball on the first bounce. If successful, he throws the ball, calling the name of another child who attempts to catch it, and so on. If he fails the same one throws the ball again, calling another child's name.

Other suggested outdoor games are: 1. Old Mother Witch, (2) Chariot Race, (3) Follow the Leader, (4) Three Deep, (5) Ruth and Jacob, (6) Trades.

Indoor Games:

Eraser Relay

Place a clean eraser on the first desk in each row. At a signal the eraser is passed back over the head to the one behind. The last child in the row, runs up and places it on the first desk again. The row which finishes first wins.

Other suggested indoor games are: (1) Marching Through Jerusalem, (2) Schoolroom Tag, (3) Crooked Man, (4) Exchange Tag, (5) Saw, (6) Fire Engine.

Rhythmic Plays:

Marching is valuable in teaching children to walk with a brisk, elastic step. Use phonograph records, or let the children sing. "The Farmer in the Dell", "Around the Mulberry Bush," and "London Bridge is Falling Down" may be used. Vary the steps as follows:

- 1. Clap hands at every accented step.
- 2. Clap hands at alternate accented steps.
- 3. Clap first in front and then behind the back.

- 4. March on tiptoes.
- 5. March through one line of music, then on tiptoes for a line, then march regularly, and so on alternately.
- 6. March bending body to left for two counts, then to right for two counts, then to left for two counts, and so on.
- 7. While marching wave an imaginary flag over the head, first with the right hand and then with the left.

Correlation with other subjects.

Brush Your Teeth (Tune-Scotland's Burning)

Brush your teeth,

Brush your teeth,

Twice each day,

Twice each day,

Use your toothbrush morn and night,

Then your teeth

Will not decay

Silent Reading Lesson:

The Fly

The fly likes dirty places.

It likes to get its dinner from garbage piles.

Then it flies into the house.

It crawls on the food.

It crawls on baby's face.

It falls into the milk.

It leaves dirt wherever it goes.

Questions to be answered after reading:

What does the fly like?

Where does it like to get its dinners?

What does it do in the house?

What does it leave on our food?

Write one thing that you can do to keep the fly away.

Activities

Make a fly swatter

Make posters showing flies around a garbage can and then on food.

Silent Reading Lesson:

Draw a line under the proper words.

We should drink

coffee

tea

milk

We should eat

fruit

pie

candy between meals

We should eat

meat for breakfast cereal for breakfast

beans for breakfast

Miscellaneous devices for correlation with other subjects:

- 1. Teach the children to read the thermometer, since it is counting by twos.
- 2. How many quarts of milk would the Second Grade need if each child drank one quart? How many pints would this be?
- 3. Let each child trace the outline of his hand on a sheet of paper and cut it out. On this write the spelling lesson of such words as clean, hand, shining, nails, etc.
- 4. Show that The Three Bears obeyed the health rules, too, for they ate cereal, took a walk in the open air, had separate beds and slept with windows open.

Suggestions for Projects:

1. Each month have the children make a calendar about 12 inches by 14 inches. To teach the use of the ruler and how to make figures, let each one mark off the squares and put in the dates. The upper half should also be decorated by the child, either with pictures cut from magazines or cut-out pictures. These will be the subjects of study that

month and through this study health rules will be brought out. For example in October, have a picture of a pumpkin face and corn stalks. Study the uses of pumpkin and corn. Talk about cereals made from corn. In November, have pictures of Puritans and a Thanksgiving feast. Discuss the suitability of clothes and the kind of foods that are good for dinner, also how to set the table. In February show a log cabin. Discuss the merits and demerits of pioneer homes as to heat ventilation, furniture, etc. In April show "Mary, Mary Quite Contrary" in her garden. Review ideas about proper foods by talking about what we should plant in our gardens and encourage home gardening.

Let each child paste a gold star over the date if he has obeyed, that day, the particular health rules being studied that month.

2. For teaching safety, let the children construct a model city on the sand table, showing playgrounds, parks, streets, autos, pedestrians, etc; and use it, observing regulations.

The following lesson on foods was sent in by a New Mexico teacher.

Lesson on Proper Foods (This lesson has been abbreviated)

I. Aims:

- A. To develop in the child a knowledge of the foods he should eat, in order to be well, strong and healthy.
- B. To develop in the child a knowledge of foods which he should avoid because of the harmful affects which they have.
- C. To create in the child a desire to eat proper food and avoid food which is harmful.

II. Introduction:

A. A picture of two children is shown to the class. One of the two boys is a bright, healthy, lively boy who is playing with a dog. The other boy is thin, lifeless and dull

looking. He is just sitting on the grass watching the other boy.

- B. Conversation: Such questions as these are asked.
 - 1. What are the boys in this picture doing?
 - 2. What difference do you see in these two boys?
 - 3. Which child would you rather be?
- C. Teacher tells story about the two boys.

III. Method and Procedure:

- A. Discussion of milk.
 - 1. Where milk comes from.
 - 2. Why milk should be kept clean.
 - 3. What we make from milk.
- B. Discussion of other foods that make boys and girls strong and healthy.
 - 1. Vegetables
 - 2. Fresh and dried fruits
 - 3. Cereals
 - 4. Eggs
 - 5. Water
 - C. The things boys and girls should not eat.
 - 1. Tea and coffee
 - 2. Cake and pie

IV. Summary:

- A. The children made a poster of a turnip, apple, orange and a bottle of milk, all driving tea, coffee, and candy to jail.
- B. The children dramatized the story which the poster told them.

The following lesson was sent in by a New Mexico teacher. It is based on a story in a specific book, so only a summary is given here.

The teacher told a story of germ enemies, how they are spread, and how they may be killed with hot water, soap and sunshine.

Health verses are learned such as the following:

Sickness germs I must defeat, And so I wash before I eat.

I never touch my nose or lips With pencils, coins, or finger-tips.

I keep away from those who sneeze For they may have a germ disease, And when I cough, or sneeze or sniff, I do it in a handkerchief.

For hand work, the children made a small poster, showing the sun shining and four figures representing germs, running away from it. Below was written,

If you want the germs to run Let them see the big, hot sun.

In Language they wrote health rules and short, original stories. Some of the latter follow, without correction;

When I had the Whooping Cough I had a fever and felt sick. The doctor stuck a needle in me.

Chicken Pox

When I had the Chicken Pox mother wrapped me up in a blanket and in a pillow case and Daddy caught the Chicken Pox from me.

GRADE OUTCOMES

Improve mastery of those Knowledges, Habits and Skills and Attitudes in previous grade.

I. Knowledges:

- A. Personal Hygiene and Sanitation:
 - 1. How to have a clean body.

- 2. Care of the teeth, eyes, ears, mouth, nose, etc.
- 3. Protection of the eyes, ears, nose and mouth from foreign objects.
- 4. Protection of the enamel of the teeth and the care of the six year molars.
- 5. One should depend upon eating the right food, resting, and playing rather than medicine in causing regular elimination of waste.
 - 6. Dangers from dirt and filth.
 - B. Nutrition, Rest, Air and Sunshine:
- 1. Value of milk, vegetables, butter, hard bread, eggs, and cereals as an aid to growth.
- 2. Growth is a sign of health in children and all young animals.
- 3. Weighing and measuring help to show whether or not a child is growing enough.
 - 4. How much he should weigh.
 - 5. Importance of rest, air, and sunshine to the body.
- 6. Nature of rest and what precautions should be taken when playing outdoors in the fresh air and sunshine.
- 7. Importance of rest and sleep in the growth of children.
- 8. Temperature of the room should not be over 68 degrees when artificially heated.
 - C. Exercise and Posture:
 - 1. Relation of posture to alertness and poise.
 - 2. Importance of exercise to growth and enjoyment.
 - D. Clothing:
 - 1. Proper clothing for different occasions.
 - 2. Tight garters are harmful.
- 3. Shoes should be comfortable, have low heels, broad toes, and straight inside lines.
 - 4. Clothing should be neat and clean.
 - E. Safety First, First Aid, Contagious and Infectious Diseases.
 - 1. How to cross the street safely.

- 2. Dangers of playing with matches.
- 3. How to recognize poison ivy and other common poisonous plants.
 - 4. How to keep cuts and wounds clean.
 - 5. How to stop nosebleed.
 - 6. How to put out clothing that is on fire.
 - 7. Importance of vaccination and inoculation.
- 8. Importance of keeping hands clean, drinking clean water, and eating clean wholesome foods in helping to keep children well.

F. Mental and Social Health:

- 1. Desirable mental traits as, consideration for others, cheerfulness, self-control, obedience, truthfulness, and courtesy.
 - 2. How to live happily with other human beings.

II. Habits and Skills:

- A. Personal Hygiene and Sanitation:
 - 1. Washes the hands and cleans the nails.
 - 2. Washes own face, hands, etc.
- 3. Has a clean handkerchief and cares for the nose at the proper time.
 - 4. Brushes the teeth regularly and properly.
 - 5. Bathes at least twice a week.
 - 6. Goes to the toilet regularly.
- 7. Keeps foreign objects out of mouth, eyes, ears, and nose.
 - 8. Keeps cuts and wounds clean.
 - 9. Helps to keep home, school and community sanitary.
 - B. Nutrition, Rest, Air, and Sunshine:
- 1. Eats healthful foods as, fruits, vegetables, hard breads, cereals, butter, and eggs.
- 2. Eats at least one food daily which requires vigorous mastication.
 - 3. Eats slowly, regularly and cheerfully.
- 4. Drinks plenty of water, but does not wash down food.

- 5. Avoids tea, coffee, etc.
- 6. Sleeps with windows open.
- 7. Breathes through the nose if possible, if not possible reports to the teacher or nurse.
 - 8. Develops good sleeping habits.
- 9. Goes to bed early, gets at least eleven hours of sleep, rises promptly, and cheerfully.
 - 10. Takes complete rest before and after meals.

C. Exercise and Posture:

- 1. Plays vigorously out doors when possible, and indoors with open windows when impossible to play out doors.
 - 2. Sits and stands correctly.

D. Clothing:

- 1. Chooses appropriate clothing for outdoors.
- 2. Wears proper day and night clothing.
- 3. Removes damp clothing as soon as possible.
- 4. Comes to school as clean as possible.
- 5. Assists in keeping clothes clean.
- E. Safety First, First Aid, Contageous and Infectious Diseases.
 - 1. Looks before crossing the street.
- 2. Crosses street only when traffic signal is favorable (where traffic is regulated).
 - 3. Obeys all traffic regulations.
- 4. Refrains from catching rides or riding with strangers.
- 5. Recognizes poison ivy and other common poisonous plants.
 - 6. Avoids fallen wires and electric cables.
 - 7. Avoids teasing animals.
 - 8. Reports all accidents to older persons immediately.
 - 9. Keeps away from children who are ill.
- 10. Reports illness of self and others to proper authorities.
- 11. Cooperates with parents and school authorities in submitting to vaccination and inoculation.

F. Mental and Social Health:

- 1. Practices self-control in anger and fear reactions.
- 2. Concentrates on the work or play at hand.
- 3. Practices truthfulness.
- 4. Maintain a happy frame of mind.
- 5. Respect other people's right and property.
- 6. Is not afraid of school nurse and doctor.

III. Attitudes:

- A. Personal Hygiene and Sanitation:
 - 1. Pride in having clean hands and nails.
 - 2. Satisfaction in feeling clean and refreshed.
 - 3. Interest and pride in having clean teeth.
- 4. Quiet and matter of fact in attending to the needs of elemination.
 - 5. An increased repugnance for dirt.
- 6. Increased pride in helping to keep home and school surroundings sanitary.
 - 7. An active interest in clean-up campaigns.
 - B. Nutrition, Rest, Air, and Sunshine:
 - 1. Appreciation of the value of proper foods.
 - 2. Desire for milk and avoids tea, coffee, etc.
 - 3. Increased liking for fruits and vegetables.
- 4. Enjoyment of eating in neat, clean surroundings in leisurely fashion.
- 5. Growing desire and habit of sleeping with windows open.
- 6. Beginning of an appreciation of the need for rest and the benefits derived from it.
 - 7. Enjoyment of play in the sunshine.
 - 8. A willingness to go to bed.

C. Exercise and Posture:

- 1. Spontaneous enjoyment of outdoor play.
- 2. Desire for "fair play."
- 3. Courage to learn new feats.
- 4. A cheerful loser and a generous winner.

- 5. Growing appreciation of good carriage.
- D. Clothing:
 - 1. Satisfaction in good personal appearance.
 - 2. Interest in helping to care for one's own clothing.
 - 3. Enjoyment of clean, fresh, neat clothes.
- E. Safety First, First Aid, Contageous and Infectious Diseases:
- 1. He is not constantly afraid of accidents but appreciates that they should be avoided.
 - 2. He tries to retain self-control in an emergency.
 - 3. He tries to bear pain bravely.
- 4. He is not frightened by the existence of communicable diseases in the neighborhood but appreciates the value of preventive measures.
 - F. Mental and Social Health:
 - 1. A willingness to help others.
 - 2. A willingness to take part in group activities.
 - 3. A willingness to obey the rules of the group.
 - 4. One does his work cheerfully.
 - 5. He is learning not to shirk disagreeable duties.
 - 6. Encouragement of shy children to join in the play.
- 7. Pleasure in helping younger children and older people.

READING TABLE BOOKS

- Whitcomb, Beveridge "My Health Habits" Book I, Rand McNally Co.
- Broadhurst, "All Through the Day the Looking-Glass Way" Lippencott.
- J. I. Lummis and Schawew "The Safety Hill of Health" World Book Co.
- E. G. Griffith "Cho-Cho and the Health Fairy." MacMillan. Richards. "The Pig Brother" Little Brown.
- Waldo "Safety First for Little Folks" Scribner.

Additional References for this grade are listed after the third grade references.

THIRD GRADE

SUGGESTED WEEKLY TIME ALLOTMENTS

The time allotted per week to health, physical, and safety education should be divided approximately as follows: recess, including supervised play, 150 minutes; physical training, 90; and hygiene, 25.

SUGGESTIVE ILLUSTRATIONS OF TEACHING

The following examples are suggestive types to be followed in the teaching of health education. See also suggestions in first, second and fourth grades.

Weighing and Measuring

Continue the work of weighing and measuring as suggested in grades I and II.

Rules of the Game

A teacher in this state taught the rules of the game by means of a health booklet which the children made. On the first page the health rules are listed. Under the heading, "Which One Am I Like," is found:

Bessie never takes a bath,

Her clothes are black with grime;
She hates to drink fresh water,

And is cross most all the time.

Mary takes a bath each day,
Her clothes are clean and white;
She drinks a lot of water too,
Which keeps her well and bright.

Both stanzas are illustrated by appropriate pictures cut from magazines and pasted in. There are ten posters, each one devoted to a particular health rule. On the last page are pasted stars won by the pupil for observance of health rules.

Example lesson on care of the teeth:

Pupil's aim:

To get elementary knowledge on the importance of tooth care.

Teacher's aim:

To interest children in the care of the teeth by showing the value of good teeth.

Method:

Draw on the board a sound tooth showing and naming the different parts. With colored crayons, make the nerve red. Show that this is a sound tooth the kind we have when we brush our teeth regularly and care for them.

Draw on the board an unsound tooth. Call attention to the decay that has begun and show how food left between the teeth causes decay. Point out that the sound tooth does not ache.

Make use of charts, booklets, and tooth paste samples from manufacturers of tooth paste. After tooth paste samples are gone, teach the use of soda, salt and lime water for cleaning the teeth.

A Sleep Tower:

Draw on the board a tower eight inches high and one inch wide. How many children slept eight hours? Write under the tower the number who slept eight hours. How many slept nine hours? Make a tower showing the number who slept nine hours. Do the same for ten hours and eleven hours. Which tower had the most children? Which should have had the most? These are "sandman" charts. Date them and leave them on the board. Every day write under each tower the number of children who belong there that day. See how many children can belong in the ten hour tower.

Form a "sandman brigade." To belong to it, each child

must sleep ten hours with windows open, without light in the room. Weigh each member when he joins the brigade and after he has been a faithful member for one month, see if he has gained in weight.

A Sleep Map:

Get a long piece of paper and measure off on it a band one-half inch wide and twelve inches long. Mark off on it the half inches. Let every half inch represent one hour. Call first half inch one o'clock at night; call second half inch two o'clock and so on until noon. Call next mark one o'clock and continue up to midnight. Mark on your scale the time you went to bed last night. Mark on your scale the time you got up this morning. Now color black the parts of your scale when you slept. This is your sleep map. How many hours did you sleep? Is this enough?

Daily Inspection

A teacher in Bergen County, New Jersey, worked out as a device for morning inspection a large wheel drawn on cardboard. In the space between each spoke was written a health habit. An indicator fastened in the center was spun around and whichever health habit it stopped on was the one to be inspected that day. As the children never knew, for which health habit they would be inspected, the element of chance transforms the routine of morning health inspection into a real adventure.

Games and Plays

Outdoor games:

Black Tom.

The playing field and players are divided as follows: two paralled lines (50 to 100 feet apart) are drawn, and behind one of these lines the players take their places while one player who has been selected to be "It" stands back of the other players. The player who is "It" calls loudly. "Black

Tom, Black Tom, Black Tom." Whereupon all players must run across the central field to a safe place behind the opposite line. The player who is "It" tries to tag another player while he is running from line to line; and if he is successful, the tagged player takes his place in the center field to assist in catching the players. If "It" calls, "Black Tom, Black Tom, Red Tom" or any other color than Black Tom, players must not run; but if they make a false start and cross the base line, they automatically go over to "It's" side. The game continues until the last player is tagged by one of "It's" side.

Other games suitable for the Playground are:

(1) Do This-Do That, (2) The Serpentine Maze, (3) Water Sprite, (4) Cat and Rat, (5) Jolly is the Miller, (6) Spider and Flies, (7) Hill Dill, (8) Call Ball, (9) Center Base, (10) Cross Tag, (11) Relay Races.

Indoor games:

Automobiles

(Relay) The first child in each alternate row, at a signal given by the teacher leaves by the right side, runs forward around his seat and then to the rear on the left side, completely encircling his own row of seats. As soon as he is seated, the next child behind him runs in the same manner, and this continues until the last child has run and has returned to his seat. The other rows then play in the same way, and finally the winning rows compete. At the beginning, the captain for each row names the automobile represented by his row.

Other suitable indoor games are: (1) Huckle, Buckle, Bean Stalk; (2) I Saw; (3) Fox and Geese; (4) Simon Says; (5) Have You Seen My Sheep; (6) Oats, Peas, Beans, and Barley; (7) Guess Who; (8) Pussy in the Corner; (9) Charley Over the Water; (10) Flying Dutchman.

Mimetics:

Mimetics are imitative movements of well-known activities without the usual equipment. They are related to

story plays but are more formal and more attention is paid to the way in which the exercise is performed.

Bicycling:

Alternate knee upward bending, with hands held in front as if grasping handle bars. Hands on neck (riding without hands.)

Bouncing Balls.

Take three soft, light jumps in place; turn to right for fourth jump. Repeat to left.

Cowboys Throwing Lasso.

Feet apart, place left hand on hip and raise right hand above head; swing the right arm round and round in circles over head. At the end of eight turns throw hand forward as if throwing a lasso. Repeat four times. Left arm four times.

See Saw.

Three children to a seesaw. The center standing with arms stretched out at side is the plank, and the two outer players each holding with both hands to the end of the seesaw, are the riders. Center player bends right. Rider on that side bends knees to sitting position; the other stands on tiptoes. Then the right hand player stands on tiptoes while the one on the left bends his knees. Continue this movement. Players may be asked to change positions.

Other suggested mimetic games are: (1) Jumping Jack; (2) Gathering Apples; (3) Jack in the Box; (4) Chopping Wood. These may easily be worked out by the teacher. If additional material is wanted refer to story plays and rythmic games, grades II and IV.

Correlation with other Subjects

English: Give a series of lessons dealing with safety on the highways with the motive of teaching personal safety to the members of the class and also the need for teaching younger brothers and sisters how to keep safe on the highways. Emphasize the following safety rules:

- 1. Do not jay-walk.
- 2. Look first to the left and then to the right before crossing the street.
 - 3. Obey the traffic officers and signals.
 - 4. Observe the white lines at street crossings.
 - 5. Use streets and not back alleys.
 - 6. Walk on the pavement.
- 7. (In the country) Walk on the left side of the high-ways.

Dramatize correct and incorrect conduct on the highways. Use the oral English period to discuss such emergencies as: What I would do if my dress caught on fire; if I had to cross a crowded street; if I cut my finger; if my ball rolled into the street; if I got lost?

Let children make a health alphabet of original verses.

Here is some work by third-grade children:

A is for Apples, So round and so red; They're better than candy, Let's eat them instead.

F is for Fruits, And also for Fig, The children who eat them Will surely grow big.

Below is an example of a third-grade pupil's uncorrected written English:

How we will make our "Health" House.

The foods that are the very best for us to eat are milk, vegetables, fruits, rice, cereals, cocoa.

We're going to use Oatmeal for the walls, Raisins for the chimney, Soup crackers for the roof, Bread for the door, Crackers for the windows, Flour and water for plaster.

Projects

1. The Health House.

Pupil's aim:

To construct a house of health.

Teacher's aim:

To teach the foods that promote health.

Method:

The frame work of the house may be made of cardboard or a log cabin syrup tin, with doors and windows cut at the proper places. This is placed on a square of heavy cardboard which has been covered with green crepe paper to represent the lawn. The dimensions of the house should be about fifteen inches square and twelve inches in height; that of the cardboard square about thirty inches square. A sand table could be used if available.

The house is stuccoed with oatmeal fastened to the sides with paste or flour and water. Graham crackers are used for shingles on the roof or cornflakes may be used. The chimney, facings of the doors and windows, and the borders of the walks are made of raisins. The walks may be made of cornmeal, any granulated breakfast food or beans.

The trees on either side of the walks are fashioned from prunes, two of these being fastened together with a match or tooth pick for each tree. The flowers are cut from beets and carrots. A tiny milk bottle represents the fountain, while the fence around the lawn is made of macaroni. A sign over the entrance reads: "House of Health."

The essential health foods which cannot be used in the construction of the house may be drawn to represent children living in it. These might include milk, eggs, meat, fish, fruit and vegetables.

The body may be compared to an engine in order to bring out the different kinds of food necessary to the body. Oil, gasoline, and water may be compared to the protein, fat, and carbohydrates of our food.

2. Dried Fruit Projects

Pupil's aim:

To acquaint himself with the knowledge of the value of fruit as a health builder; to make a note book correctly; to make a fruit man.

Teacher's aim:

To teach that dried fruit as well as fresh fruit, forms an essential part of the diet.

Method:

Collect illustrative pictures and posters. Have on hand fruit, such as prunes and dried apricots for each child to make a "dried fruit man." (Book of Nutrition, Borden Company.) Let children tell what kind of fruit they have eaten that morning.

After a discussion of the value of fruit, begin work on a note book. Mount pictures in the note book. Follow this with a written summary of the food value of fruit including dried fruit. Make a fruit man using toothpicks, marshmallows, raisins, apricots, prunes.

GRADE OUTCOMES

I. Knowledges:

(Improve mastery of those knowledges, habits, and skills, and attitudes attained in previous grades).

- A. Personal Hygiene and Sanitation.
 - 1. Care of hands and nails.
 - 2. Care of teeth.
 - 3. Care of scalp and hair.
 - 4. Importance of elimination.
 - 5 Use of drinking cups, towels, handkerchief and comb.
- 6. Importance of washing fruits and vegetables before eating raw.
 - 7. Cleanliness of homes, classrooms and toilets.
 - 8. Menace of flies.
 - B. Nutrition, Rest, Air, and Sunshine.
 - 1. Quantity of milk and water that should be used daily.

- 2. Breakfast, dinner or supper that is good for growing girl or boy.
 - 3. Value of sleeping long hours with windows open.
- 4. Amount of sleep necessary and what takes place in the body while we rest.
 - 5. Value of deep breathing.
 - C. Exercise and posture.
 - 1. Value of good posture to health.
 - 2. Ways of correcting poor posture.

D. Clothing.

- 1. Care of day and night clothing.
- 2. Clothes help to keep a person warm.
- 3. Clothes should be heavier in cold weather than in warm.
- 4. Clothes that are wet make one cold and therefore should be removed.
 - 5. Rubbers should be worn in wet weather.
 - E. Safety First, First Aid, Contagious and Infectious Diseases.
 - 1. Simple rules for prevention of infection.
 - 2. Quarantine, why we observe it.
 - 3. Recognition of poisonous labels.
 - F. Mental and Social Health.
 - 1. Value of good disposition on health.
- 2. Value of controlling emotions such as fear, anger, and jealousy.

II. Habits and Skills:

- A. Personal Hygiene and Sanitation.
 - 1. Washes hands before eating.
 - 2. Washes hands after going to toilet.
 - 3. Brushes teeth daily.
 - 4. Uses individual cups, towels, etc.
- B. Nutrition, Rest, Air, and Sunshine.
 - 1. Eats slowly chewing thoroughly.
 - 2. Eats candy only after meals.
 - 3. Does not eat between meals.

- 4. Drinks at least four glasses of water a day, between meals.
- 5. Keeps air clean about one by using handkerchiefs when coughing, sneezing or spitting.
 - C. Exercise and Posture.
 - 1. Breathes properly.
 - 2. Sits and stands straight.
 - D. Clothing.
 - 1. Wears comfortable clothing.
 - 2. Takes good care of clothing at home and at school.
 - E. Safety First, First Aid, Contagious and Infectious Diseases.
 - 1. Disposes of sewage and garbage in clean safe way.
 - 2. Obeys rules for quarantine.
 - 3. Obeys laws of good health.
 - 4. Notifies proper persons when injured.
- 5. Never plays or loiters around railroad tracks or bridges.
 - 6. Never uses gasoline or kerosene to start fires.
 - 7. Never builds fires in dangerous places.
- 8. Puts nails, scissors and other sharp objects where they can do no harm.
 - 9. Helps to prevent the breeding of flies and mosquitoes.
 - 10. Stays away from crowded place during epidemics.
 - F. Mental and Social Health.
 - 1. Forgets grudges, jealousies and suspicions quickly.
 - 2. Enjoys both work and play.
 - 3. Shares one's pleasures and possessions with others.
- 4. Is courteous and considerate of one's companions and interested in their welfare.

III. Attitudes:

- A. Personal Hygiene and Sanitation.
 - 1. Enjoyment of being clean and neat.
 - 2. Enjoyment of having hair, teeth and nails clean.
 - 3. Enjoyment of clean homes and surroundings.

- B. Nutrition, Rest, Air, and Sunshine.
 - 1. Enjoyment of being habitually cheerful at meal time.
- 2. Enjoyment of self-control with regard to the kind, amount and time of eating food.
 - C. Exercise and Posture.
- 1. Enjoyment of deep breathing induced by wholesome exercise.
 - 2. Enjoyment of sitting and standing straight.
 - D. Clothing.
 - 1. Enjoyment of clean and proper clothing.
 - E. Safety First, First Aid, Contagious and Infectious Diseases.
 - 1. Cautious about going near fires.
 - 2. Desire to retain self-control in an emergency.
 - F. Mental and Social Health.
 - 1. Concentration on whatever one is doing.
 - 2. Enjoyment of taking turns in games.

READING TABLE BOOKS

Andress, "The Sunshine School," Ginn & Co.
Moulton, "Adventures in Health," Little, Brown Co.
Andress, "A Journey to Healthland," Ginn & Co.
Andress, "Boys and Girls of Wake Up Town," Ginn & Co.
Jones "Keep Well Stories for Little Folks," Lippincott.

ADDITIONAL REFERENCES FOR THE FIRST THREE GRADES

FREE HEALTH MATERIAL WHICH THE TEACHER MAY OBTAIN

I. Personal Hygiene:

Palmolive Peet Co., Kansas City, Mo.

Proctor & Gamble Co., Cincinnati, Ohio.

Cleanliness Institute, 45 E. 17th St., New York.

"The Magic Pearls," Colgate Co., San Francisco, Cal.

"The Tinies That Live in a Tube," E. R. Squibb Co., New York.

Eye Chart, Eyesight Conservation Council, New York City.

II. Mental and Social Health:

"Plays and Pageants," American Red Cross, San Francisco, California.

"Social Health," American Social Hygiene Assn., New York City.

III. Nutrition:

National Dairy Council, 910 S. Michigan Ave., Chicago.

The Borden Co., Borden Bldg., New York City.

American Institute of Baking, Chicago, Ill.

Kellogg Co., Battle Creek, Mich.

Minute Tapioca Co., Orange, N. J.

Postum Cereal Co., Battle Creek, Mich.

Quaker Oats Co., Chicago, Ill.

IV. Rest, Air and Sunshine:

National Tuberculosis Assn., 370 Seventh Ave., N. Y. Metropolitan Life Ins. Co., New York City.

V. Clothing:

"Child Care," (The pre-school age). U. S. Dept. of Labor, Children's Bureau, Pub. No. 30, Wash., D. C.

VI. Posture:

VII. Exercise:

"A Brief Manual of Games for Organized Play," Children's Bureau, U. S. Dept. of Labor, Wash., D. C. Pub. No. 113, (revised edition).

"Play and Recreation," U. S. Dept. Of Labor, Bureau Pub. No. 92. Washington, D. C.

VIII. Sanitation:

Safe Milk, Pub. by Metzger Bros., Dallas, Tex.

IX. Safety First:

National Safety Council, 945 George St., Chicago, Ill. State Fire Marshal, Santa Fe, N. M.

X. First Aid:

Johnson & Johnson, New Brunswick, N. J. Mentholatum Co., Buffalo, N. Y.

XI. Contagious and Infectious Diseases:

"Safeguard Their Health," Palmolive Peet Co.

"Child Care" U. S. Dept. of labor, Children's Bureau, Pub. No. 30, Washington, D. C.

TEACHERS' REFERENCE BOOKS

Games and Plays

E. F. Acker, 400 Games, F. A. Owen Co., Wild, White, Physical Education, Iowa State Teachers' College, Cedar Rapids, Iowa. J. H. Bancroft, "Games for the Playground, Home and Gynasium," MacMillan Co.

Health Behavior, Public School Pub. Co., Bloomington, Ill.

Turner & Collins, "Health," D. C. Heath & Co., Boston. Whitcomb & Beveridge, "Our Health Habits," Rand,

McNally Co.

Bigelow, "Health for Everyday," Silver, Burdett Co.

Andress, "Health & Success," Ginn & Co.

Turney, "In Training for Health".

Cobb, "Chalk Talks on Health & Safety," MacMillan Co.

PUBLISHERS OF POSTERS USABLE IN THE FIRST THREE GRADES

Cream of Wheat Co., Minneapolis, Minn.

American Institute of Baking, 1135 Fullerton Ave., Chicago, Ill.

Palmolive Co., 42-60 Fourth St., Milwaukee, Wis.

Proctor & Gamble Co., Educational Dept., Cincinnati, Ohio.

Colgate-Palmolive Peet Co., 105 Hudson St., Jersey City, New Jersey.

National Welfare Assn., 70 Fifth Ave., N. Y.

Catalog of posters, National Child Welfare Assn., 70 Fifth Ave., N. Y.

FOURTH GRADE

SUGGESTED WEEKLY TIME ALLOTMENT

The time allotted per week to health, physical, and safety education should be divided approximately as follows: recess, including supervised play, 150 minutes; physical training, 90; and hygiene, 45.

SUGGESTIVE ILLUSTRATIONS OF TEACHING

The illustrations which follow are merely suggestive.

Weighing and Measuring

Have each child make his own card each month. It can be a milk bottle, shape of a vegetable or fruit. Use something that shows the features of the month. Give height, normal weight and actual weight.

Morning Inspection

Select pupils to be doctor and nurse and have them inspect, as to points given in first grade outline. Organize an auto race. Have each row choose the name of a car. Get a picture of the car and put on the board. When every child in the row meets the requirements, place a star on the car of the row. The car that gets the most stars in the time set wins. You may use some picture each month that represents the feeling of the month.

Form a board of health to keep room clean and in good condition. Consider cleanliness of desks, floors, halls, adjustment of shades, position in relation: daily reading of thermometer with proper regulation of windows.

Rules of the Game

"My Health Creed"

"Four glasses of water I drink every day;
I always find time in the fresh air to play;
With windows thrown open for ten hours I sleep;
I'm careful to bathe more than once every week;
Each day I remember to brush my teeth twice;
I eat lots of fruit, for it's juicy and nice;
My face, neck, and ears and my hands I keep clean;
I dine very often on vegetables green;
I never drink coffee, I never drink tea,
I know that fresh milk is the best thing for me.
There's lots to remember, for this list is long,
But I am determined to be well and strong."

Natalie Bassett Dumont

Devices:

The more blackboard drawings, diagrams and other illustrations made by pupils, the more concrete and more effective the lesson will be.

Form a "Modern Health Crusade." For information concerning organization, write National Tuberculosis Association, 370 Seventh Avenue, New York.

Have children make booklets on teeth and posters showing six molars and their value, position of teeth, reasons for decay and reasons for brushing. Write manufacturers of dental creams, powders, and tooth brushes for literature and posters.

Show that pores are little holes in the skin. A pupil may bring a magnifying glass, which should be used for this purpose.

Write manufacturers of plumbing, bathroom fixtures. and soap for posters and literature. Use the literature as reading materials.

Encourage pupils to visit dairies, stores, bakeries, and

other public places and report on conditions as to cleanliness and arrangement.

Have children make booklets of food combinations. Make vegetable, fruit, and cereal posters. Compose poems, stories and rhymes about posters. Visit grocery stores and list the many kinds of foods suitable for good health.

Have pupils write menus of their daily meals. Discuss them, giving constructive criticisms where necessary. Give examples of best menus.

Have pupil make booklets in shape of apple, orange, or any fruit. In this he writes his weight now, place for gain, diet, slogans, and jingles. Booklets can be made in shape of fruit or vegetable, giving history and uses of it.

Let each pupil make a health calendar as a present for mother. Use red and green cardboard 8 by 10 inches in size. On the outside paste a picture of a rosy-cheeked, healthy looking child. On the first page place a picture of a child eating breakfast and on page opposite print food suggestions. On other pages paste cut-out pictures of good foods for dinner and supper.

Select clippings from paper about accidents caused by drunkenness. Show by pictures effects of both alcohol and narcotics on the body.

Explain that florists burn tobacco stems in greenhouse to poison and kill insects on the plants.

Explain that farmers blow tobacco smoke into beehive to stupify the bees so that the honey can be taken out.

Demonstrate how air takes up water from a pan by evaporation. If we do not supply water, the air takes it from our bodies.

Study the pioneer's home. Make a cabin. Compare with ours as to ventilation, heating and lighting. Why were such primitive homes not more dangerous to health? Compare activities and foods of pioneer children with ours.

Demonstrate necessity for oxygen in combustion by

placing an inverted jar over a burning candle. Flame dies out when oxygen is used up.

Demonstrate what is meant by a draft. Blow on hand, or open window and door across from each other.

Demonstrate effect of sunlight on germ growth by effect on molds. Place one piece of bread in sunlight, another in a dark, damp place. Pupils may try this at home and report to class.

Demonstrate harmful effect of tight garters and tight clothing by tying a string tight around a rubber tube or a plant stem.

Demonstrate use of clothes brush in class.

Have pupils collect different materials used in clothing and paste them on a chart. Determine from which plant or animal each is secured. Determine best kind to wear in different seasons. Write answers under each.

Make posters on good posture, using picture brought by children. Place best ones on Health Bulletin Board.

Develop good posture by drills and marching. Posture is developed in games.

To strengthen the postural muscles:

- 1. Clasp hands on top of head.
- 2. Push elbows out and back.
- 3. Push up and press hands down.

Safety Contest:

Divide class in two groups and have each report all accidents to pupils on school ground. The group having the fewest give a safety banner. Safety contests are valuable.

Duties of Firemen:

Take pupils to visit the fire house; bring the fireman as a real person into the child's experience. Learn of duties. Have fireman talk to pupils. Bring policeman or other officials in to talk.

Write letters to different firms and factories asking what safety devices they use. Write National Fire Protection Association, 87 Mills St., Boston, Mass.

Make Safety booklets and posters.

Let children elect a health doctor and other health officers.

The school or the class should be regarded as a small community in which the pupils are citizens. Individual responsibilities can be effectively demonstrated and intelligent attitudes toward community developed.

Have boy scouts come to room and demonstrate first aid to class.

A device for teaching many units and getting the class to see the cause is made as follows—Draw a circle and put the name in it, (such as toothache). Draw a line from the circle and place cause in small circle at end of line. (such as too much candy, not washing teeth, etc.) There should be as many lines and small circles as causes.

GAMES

Indoor:

The Vegetable Man:

"The Vegetable Man" stands in one corner. The other children have their "home" back of a line about twenty feet away. One of these is the mother. They all cross their home line and walk slowly toward the vegetable man while the mother takes very few steps. "What vegetables should my children eat?" As long as he answers foods not vegetables (bananas, fish, etc.), the children must come closer and closer. Who he answers a vegetable (carrots, spinach, etc.), it is the signal to run. Those whom the vegetable man catches before they cross the home line must go with him and help catch until all are caught. When the mother is caught a new one must be chosen.

All Up-Relay:

Draw two circles with rims touching and 6 inches in diameter in front of each row of seats. In one of each pair of circles place an object that will stand up, as an Indian club, an eraser, a nine pin or six inch piece cut from a curtain pole. See that all the objects will stand up equally well. Each player must take the object from the circle and stand it up in the other circle, using one hand only. It is a foul to stand the object outside the circle or fail to make it stand. After the player stands it up, he runs back and touches the hand of the next one and he tries, etc. The row finishing first wins, providing it has made no fouls; if fouls are made, the row making the least fouls wins. Have enough judges to count all the fouls.

This can be played in an open space with groups of players standing in rows behind a starting line and the circles several feet in front of the starting line.

Other suggested games for school room:

1. Bean Bag Pass Relay; 2. Black Board Relay; 3. Changing Seats; 4. Do This, Do That; 5. Fox and Squirrel; 6. Hide the Chalk; 7. Last Man; 8. Marching to Jerusalem; 9. Jack Follow the Leader.

Outdoor:

Prisoner's Base:

The ground is divided into two equal parts, with a small base or prison marked off at the farther end of each division. Players guard each prison. They venture into the enemy's ground, and if caught, are put in prison where they must remain until tagged by one of their own side who is free. Both prisoner and rescuer may be tagged and brought back to prison before reaching own ground. The game is won when one side makes prisoners of all its opponent's, or when a free man enters the opponent's prison. But this last may be done when there are no prisoners there.

Dodge Ball:

Divide the players into even sides. One side forms a large circle, and the other side takes its place inside the circle. Give the players on the circle a basket ball, volley ball or soft ball. The circle players throw the ball at those inside the circle. Anyone hit by the ball below the shoulders falls out. The players within the circle may dodge or jump the ball, run around the inside of the circle and resort to any tactics except leaving circle. Each side is allowed to stay in circle four minutes. Two balls may be used at one time. The side having the most left in the circle at the end of time, wins the game.

Other games:

1. Bean Tag Pass Relay; 2. Bull in the Ring; 3. Follow Leader; 4. Fox and Geese; 5. Tag; 6. Bear in Pit. Boy closed in a circle and tries to break through; 7. Cross Tag. When a pupil runs between the tagger and the one he is trying to tag, the tagger tries to tag him, etc. 8. Races of Various kinds; 9. Dare Base.

Rhymes, riddles, jingles and poems are always attractive to children. Considerable material of this character based on health essentials is now available. Children also like to compose this type of material:

- 1. Rhymes:
- 2. Riddles:

"I am the telephone of your body. I send messages to all parts of your body. I tell you when to move your arm. What am I?" Answer: nerves.

3. Jingles:

- 1. "A bath every day
 Keeps sickness away."
- 2. "Deep breathing and simple food Makes you happy and good."
- 3. "Higglety pigglety my brown hen Lays white eggs for little men."

 A nine year old boy.
- 4. Poems:

There were three little girls, With teeth as white as pearls, In an old fashioned way,
With a tooth brush stiff,
And tooth paste sweet,
They tried very hard to keep them neat.

Rosemary Brow, 4A Washington School, Royal Oak, Michigan.

Songs, Plays and Singing Games

A health pageant.

A health pageant is very attractive, and the pupils find much pleasure in preparing for it. Permit each pupil to choose an athletic sport or some characterization which he wishes to represent. Each pupil should work out his own costume; he should also compose an original rime or jingle about the sport which he has chosen. Suitable music should be arranged for by the school orchestra or any other available source. Each character appears on the stage, gives a short performance, repeats his jingle, and retires to a side line. When all have appeared, they give a simple drill as a finale.

A Play or Pageant:

One child represents a groceryman. Children represent his goods. Mother comes to buy. She asks "What is good for my children?" The foods step out and tell why. For example—the one representing carrots, steps out and tells why carrots are good. Mother now asks "What have you that is good for breakfast?" The breakfast foods step out, and so on.

Song: "I am a Health Crusader"

Tune: Dixie.

"I am a Health Crusader, Hooray, Hooray, Against disease I take my stand, To fight all germs in Dixie Land, Beware! Take care! Bad Health's a tricky trader, Line up! and be a Health Crusader." Suggested Songs:

1. John Brown; 2. Girls and Boys Come Out to Play; 3. Ten Little Indians; 4. Rabbit in the Hollow; 5. Mistress Mary; 6. Pop Goes the Weasel; 7. Indian Corn Husking Dance; 8. Nixie Polka—Victor Record No. 17327.

Correlation

Teaching of health is made more effective by correlating with other subjects. Ideas for this will be found under methods.

Project

"Our Trip to Healthland"

I. The train

- A. Class relates experiences with trains.
- B. Discuss need of strong engine; compare to body and what need to make bodies strong.
- C. Give Pullman cars names as "Pure Food," "Pure Water," "Fresh Air," etc. The observation car is "Health."
- D. Make class poster of "Health Train."

II. Where to go

- A. Select cities, mountains, rivers, etc., in geography lesson.
- B. Collect pictures of places to visit for chart.

III. What to take on trip

- A. Make individual paper drinking cups.
- B. Collect pictures of toilet articles for chart.
- C. Discuss clothing needed at places to be visited.

IV. What to eat and drink

- A. Discuss foods needed and why and what foods grow in sections to be visited.
- B. Collect pictures for chart.
- C. Select items for a health menu for dining car.
- D. Discuss kind of water needed for trip; the container; how protected.

- E. Discuss care of food in dining car.
- V. What to do on trip
 - A. Sleep and rest—when, how long, care of bed.
 - B. Keeping clean.
- VI. "Healthland"—the terminal. Discuss what this land or town should be like and what the children there should do to keep healthy.

(Hartford, Conn. Course of Study).

GRADE OUTCOMES

Improve the mastery of those knowledges, habits and skills, and attitudes attained in previous grades.

I. Knowledges:

- A. Personal Hygiene and Sanitation.
 - 1. Value of cleansing the body within and without.
 - 2. Accomplishing of outside cleanliness.
 - 3. Attaining of inside cleanliness.
 - 4. Relation of structure to function of each of the special senses.
 - 5. Value of special senses to the living person.
 - 6. Symptoms of any troubles occurring to the sense organs.
 - 7. Proper care of the senses.
 - 8. Significance of the temporary and permanent sets of teeth.
 - 9. Importance of tooth preservation.
 - 10. Foods best for bone structure.
 - 11. Essentials in caring for both sets of teeth.
 - 12. Methods necessary when milk and water supply is doubtful.
 - 13. Diseases most common, resulting from use of unclean milk and water.
- B. Nutrition, Rest, Air, and Sunshine.
 - 1. Significance of weight and height, and of growth in determining the kind of nutrition.
 - 2. Body-weight an index to health.

- 3. Certain height demands a certain weight.
- 4. Importance of regular sleep.
- 5. Importance of rest and sleep tochildren and adults.
- 6. Harmful effects of insufficient sleep and rest.
- 7. Reasons for the need of quiet play before sleep.
- 8. Use of a low pillow for hygiene sleep.
- 9. Reasons why children need fresh air and sunshine.
- 10. Ways of getting fresh air and sunshine.
- 11. Value of rest and relaxation before and after meals.
- C. Exercise and Posture.
 - 1. Value of outdoor play to health.
 - 2. Value of supervised play.
 - 3. Value of exercise to the growing child.
 - 4. Posture as an aid to health and healthful posture habits significant to position in life.
 - 5. Aids that are important in achieving criteria of good posture.
- D. Clothing.
 - 1. Necessity of properly fitting shoes to comfort of the feet.
 - 2. Rules for selecting shoes.
 - 3. Value of clean sanitary clothing.
- E. Safety First, First Aid, Contagious and Infectious Diseases.
 - 1. Preventing of those diseases spread through colds.
 - 2. Ways, most common in which a cold spreads disease.
- F. Mental and Social Health.

II. Habits and Skills:

- A. Personal Hygiene and Sanitation.
 - 1. Takes the weekly cleansing bath.
 - 2. Takes more frequent baths because of social reasons.
 - 3. Cleanses body daily.

- 4. Cares in preserving the teeth.
- 5. Cleanses mouth, tongue, and teeth carefully.
- 6. Eats foods that build bone.
- 7. Cares for special senses in proper ways.
- 8. Visits physician upon noticing symptoms of any troubles of the special senses.
- 9. Eats those foods, and drinks water healthful for the inside cleanliness of the body.
- 10. Takes exercise as an aid towards waste removal in the body.
- 11. Drinks clean water and milk.
- 12. Avoids drinking from brooks, springs, and wells not known to be pure and wholesome.
- B. Nutrition, Rest, Air, and Sunshine.
 - 1. Eats those nutritious foods necessary for growth.
 - 2. Compares height and weight, according to state of nutrition.
 - 3. Practices good food habits.
 - 4. Takes rest and relaxation before and after meals.
 - 5. Retires at regular hours.
 - 6. Sleeps sufficient hours.
 - 7. Takes quiet play before sleep.
 - 8. Uses a low pillow.
 - 9. Gets fresh air, by means of constant ventilation.
 - 10. Secures ventilation, that is, an adequate supply of pure air at all times.
 - 11. Practices habits connected with fresh air and sunshine.
- C. Exercise and Posture.
 - 1. Takes part in supervised play.
 - 2. Makes use of those health habits that build physical efficiency.
 - 3. Takes proper amount of exercise out of doors and indoors.
 - 4. Takes exercise suited to strength.
 - 5. Maintains correct position in rest and relaxation.

- 6. Holds body erect when standing or walking.
- D. Clothing.
 - 1. Wears properly fitted shoes.
 - 2. Removes unsuitable articles of clothing.
 - 3. Keeps outer clothes clean and well-aired.
 - 4. Changes under-clothing frequently.
 - 5. Wears sanitary clothing at all times for
- E. Safety, First Aid, Contagious and Infectious Diseases.
 - 1. Practices methods of disease control when having a cold by remaining at home first few days of a cold.
 - 2. Protects others by coughing or sneezing into a handkerchief.
- F. Mental and Social Health.

III. Attitudes:

- A. Personal Hygiene and Sanitation.
 - 1. Enjoyment of bath.
 - 2. Cleanliness of person, a pleasure and an essential to good manners.
 - 3. Appreciation of the importance of keeping clean.
 - 4. Enjoyment in the feeling of a clean mouth.
 - 5. Necessity of good teeth.
 - 6. Enjoyment of having good teeth.
 - 7. Desire to preserve teeth.
 - 8. Desire to preserve and care for the special senses because of their value to the body.
 - 9. Desire to eat those foods that build teeth.
 - 10. Willingness to follow measures towards a safe milk and water supply, and thus preventing diseases spread by unsafe milk or water.
 - 11. Desire to practice same hygiene habits in public that are practiced at home.
- B. Nutrition, Rest, Air, and Sunshine.
 - 1. Building up a desire for good nutrition as a means of body health.

- 2. Desire to cultivate taste for essential foods.
- 3. Desire to put into practice those habits necessary for proper sleep.
- 4. Desire for rest, air, and sunshine, needed by children and adults.
- C. Exercise and Posture.
 - 1. Desire for right kind of exercise necessary for physical efficiency.
 - 2. Desire to cultivate those habits that build up correct posture.
 - 4. Desire for play and recreation.
- D. Clothing.
 - 1. Desire to wear clean clothing.
 - 2. Desire for comfortable shoes.
 - 3. Desire to remove inappropriate clothing.
- E. Safety First, First Aid, Contagious and Infectious Diseases.
 - 2. Willingness to remain at home first few days of a cold.
 - 3. Desire to follow any health measures necessary for prevention of contagious and infectious diseases.
- F. Mental and Social Health.

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Social Hygiene, American Social Hygiene Association.

III. Nutrition:

Whitcomb & Beveridge—Our Health Habits, Milk 192-204.

Turner and Collins—Health, Digestion 73-102; Tea and Coffee 142-147; Alcohol 157-162.

Turner and Pinckney—In Training for Health, Eating for health 38-48.

The Kellogg Company.

The Meal Clock; The Wheel of Good Health;—The American Institute of Baking.

Cream of Wheat; Minneapolis, Minn.

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Emerson & Betts-Hygiene and Health, Book I.

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Turner and Collins—Health—D. C. Heath & Co.

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Turner and Pinckney—In Training for Health—D. C. Heath & Co., San Francisco.

Whitcomb and Beveridge—Our Health Habits—Rand, Mc-Nally Co., Chicago.

Free Material. Grade IV.

Teachers may secure free copies of materials listed below upon application to address. Inquiry may reveal that later publications have been issued since this outline was made.

American Red Cross—San Francisco.

American Social Hygiene Association—New York City.

American Institute of Baking—Chicago, Ill.

Colgate and Company—San Francisco.

Cream of Wheat Co.,—Minneapolis, Minnesota.

Cleanliness Institute,—45 E. 17th St., New York City.

Johnson and Johnson,—New Brunswick, N. J.

Libby, McNiel, Libby—Chicago, Ill.

Life Extension Institute—New York City.

Metropolitan Life Insurance Co.,—New York City.

Metzger Brothers Sanitary Jersey Dairy,—Dallas, Texas.

National Child Welfare Association.

National Safety Council,—945 George St., Chicago.

New England Dairy and Food Council—51 Cornhill St., Boston, Mass.

Palmolive Peet Co.,—Kansas City, Missouri.

The Borden Co.,—Borden Bldg., New York City.

The Kellogg Co.,—Battle Creek, Michigan.

The Eyesight Conservation Council,—New York City.

The Mentholatum Co.,—Buffalo, New York.

The Selby Shoe Co.,—Portsmouth, Ohio.

U. S. Department of Agriculture, Washington, D. C.

U. S. Bureau of Education, Washington, D. C.

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FIFTH GRADE

SUGGESTED WEEKLY TIME ALLOTMENTS

The time allotted per week to health, physical, and safety education should be divided approximately as follows: recess, including supervised play, 150 minutes; physical training, 95; and hygiene, 45.

SUGGESTIVE ILLUSTRATION OF TEACHING

The following are suggestive illustrations for teaching health education in the fifth grade. See also illustrations for fourth and sixth grades.

Weighing and Measuring

Have individual records of children's own making. These may be graphs or charts. Use table found in Emerson & Betts: Book I, p. 18. Send this record home to the parents.

Rules of the Game

A lesson on personal hygiene:

A. Cleanliness

Disease germs—let us make some potato traps for germs. For each experiment get an old saucer and a tumbler. Wash clean, boil for twenty minutes and leave in water until needed. Also boil clean washed potato, not breaking skin and at the same time boil the knife. Take saucers from water, do not wipe, and on each lay a slice of potato, cut with the boiled knife. Cover each slice with a boiled tumbler. Do all carefully, so as not to plant germs on the potato until the trap is set.

Now put one slice of potato on a saucer and set it, uncovered, in a sunny window. Put some dust from the floor on another slice and cover again. Find someone with dirty finger nails, and after he has cleaned them with a clean file, let him put the scrapings on another slice of potato. Put a few drops of clear pond water on another slice. Get a clean toothpick, scrape between your teeth and rub toothpick over another slice. After all have been prepared and are covered with glasses, set them in a warm dark place for a few days. Then look at them. Which ones have germ gardens growing? Which do not? What kinds of substances seem to have germs on them? What kind of places do germs like to grow in?

B. Care of mouth and teeth.

Structure of teeth.

Causes and effects of decay.

Get a mirror and find out how many kinds of teeth you have.

How many of each have you?

Get a piece of bread and a piece of hard candy. Which teeth do you use to bite the bread? The candy? To chew what you have bitten? Find how the shape of each tooth helps it to do its work. You might like to find out if your cat or dog, pony or rabbit, have the same kind of teeth and use in the same way. Do your chickens have teeth? Do they need them?

Form a tooth brush club in your room. Have two teams and run a race to see which can have the most members scrubbing teeth night and morning for a week. Keep a score card. See which team can get the best monthly average. (Haviland, "Modern Hygiene and Health.")

Devices:

Make safety booklets giving slogan, poems, and pictures of safety hazards.

Make safety posters. Have a bulletin board on which to post the posters, cartoons, drawings, slogans, clippings, school safety rules, etc. Give first aid drills after the study of that subject in the text, p. 187-195.

Keeping the essentials of a well balanced diet in mind, pupils should make menus. These may be illustrated by pictures cut from magazines. Poster form is good. The essentials of daily diet are:

- 1. Milk—at least one pint
- 2. Bread—whole wheat, graham, rye
- 3. Fruit—one kind daily; fresh, canned, dried
- 4. Cereal—one hot cereal every morning
- 5. Green leafy vegetable—one kind in season
- 6. Starchy food—potato, macaroni or spaghetti
- 7. Cooked vegetable—cabbage, cauliflower, carrots
- 8. Meat—small amount once a day in winter, omit in summer.
- 9. Deserts—jam, jelly, preserves, sauce, fruit salads, ice cream.
 - 10. Water

DAILY INSPECTION

In this grade a formal inspection each morning may not be necessary. If the teacher finds she needs devices for this, see those given in the preceding grade.

GAMES AND PLAY

This is the age of the 'gang'. Teachers should supervise picnics, campings, and outings, and encourage her pupils to join outdoor organizations, such as Boy Scouts, Girl Scouts. Health feature of pioneer life emphasized by story and drama.

Posture Tag.

- 1. Form two or more files of equal numbers.
- 2. Leaders of each file step with file to starting line, then face rear of room.
- 3. Place a bean bag or substitute on the head of each leader.

- 4. At a given signal each leader runs through aisle to rear of room and back to starting line.
- 5. Next player be prepared to take bean bag, place it on his head and repeat the action of the leaders.
 - 6. The file whose last player finishes first wins.
- 7. If a player drops the bean bag, he must place it on his head before he can continue.

When to play

- 1. Every day—at school and after school
- 2. Not too hard just before or after meals or just before going to bed.
- 3. After chores are done—Mother and Father do their work first. Play at helping them finish their work.
- 4. Play quietly in shade or rest during hottest part of day.

How to play

- 1. Obey the rules of play
- 2. Play fair always
- 3. Play for fun
- 4. Be unselfish with play equipment and toys.
- 5. Invite others to join games—New neighbors.
- 6. Not too hard or long—May weaken instead of strengthen.

Hygiene of Exercise

- 1. Bathing after vigorous play
- 2. Never play just before meals
- 3. Outdoor exercise is best
- 4. Avoid over warm clothing when resting from play
- 6. Abstinence from alcohol and tobacco by athletes.

CORRELATION WITH OTHER SUBJECTS

Histories of lives of men as to health will encourage pupils to develop their bodies.

1. Washington

"In running, in wrestling, in the use of the foils, in high jumping, climbing, shooting at a mark and pitching quoits, Washington excelled his mates. As a horseman, from the beginning to the end of his time, Washington had no peer. His powers of endurance were worthy of his extraordinary physical strength." Mrs. Burton Harrison.

2. Lincoln

Noted for his strength and endurance.

3. Gladstone, Napoleon and Blucher.

Won the admiration of the world by the master minds and physical bodies which they possessed.

4. Moses.

Strong, else march over desert, sea, and mountain would have exhausted him, Moses was 120 years old when he died, "his eye was not dim nor his natural forces abated."

"Some leaders are tall like Washington, others short like Napoleon, but almost all had bodies long in comparison to his height."—Dr. C. Ward Crampton.

Have a chart with childrens names; children grade themselves with an E. if they have tried to sit and stand correctly and did not have to be reminded.

Posters made from pictures of Boy and Girl Scouts.

Debates.

Resolved: That the nose is more essential to health than the mouth. Organize other debates on the relative values of the throat and teeth, eyes and ears, skin and lungs.

Resolved: That butter is more nutritious than oleomargarine.

That lard has more food value than vegetable oils.

That a girl does health chores to be beautiful rather than to be healthy.

That sanitary conditions may be improved more readily by creating an interest in them than by passing sanitary laws.

That baseball is a more healthful exercise than tennis.

That life in the country is safer and more healthy than life in the city.

That illness is more expensive than health.

A good time to conduct these debates is in the hygiene and sanitation periods. Socialize the recitation so that each child has a possessive interest in it. "Health Training in School," Theresa Dansdill. American Tuberculosis Association. 575.

Health Clippings.

Ask the child to bring to class short or long articles clipped from newspapers. Read these to the class. A scrap book may be compiled using clippings or typed sheets; or clippings may be pasted on the bulletin board, or pasted on cardboard and filed for future reference.

Have half the class write an autobiography for stomach that is treated correctly and the other half write for one that is treated incorrectly. Read in class.

Other suggestions:

1. Write safety play to suit these:

Characters—Chauffer, girl on roller skates, policeman, balls, skipping ropes, etc.

Properties—Taxi, cap for policeman, balls, skipping ropes, etc.

Dramatize—Situation in which girl is careless, is hurt, crowd gathers, takes name and address of girl, give lecture on safety to children. Use iodine.

- 2. Have children write stories about health topics, such as their experiences with teeth, adenoids, tonsils, etc.
 - 3. Memorize a health quotation each month.
- 4. For correlation with art, make artistic covers for health posters and booklets.

SUGGESTIVE PROJECTS

- 1. Make a list of the advantages of community control of sanitation.
- 2. Make a booklet regarding the local health department—Its work, personnel, how financed.
 - 3. Make a census of places in town where a common

drinking cup is used, (b) where wells and privies are too close together, (c) where mosquitoes breed, (d) where other unsanitary conditions prevail.

- 4. Study methods employed for disposal of garbage.
- 5. List duties of the health officer.
- 6. Write an account of mosquito control in the building of the Panama Canal.
 - 7. Find out rules of sanitation for a dairy.
- 8. Write for free posters on toxin and anti-toxin from The Metropolitan Life Insurance Co., New York. Play the game found there.
- 9. Organize boards and study rules that can be obtained from The National Safety Council, One Park Ave., N. Y.
- 10. Have a safety exhibit prepared by pupils for display in a store window. Toy machines and properties may be borrowed from merchants in return for advertising.
- 11. Cooperate with Agricultural Extension Agent and Home Demonstration Agent in organizing garden clubs, canning clubs, chicken clubs and other forms of clubs which lead to outdoor activities and knowledge regarding foods.
- 12. Plan a model dairy. Visit a dairy if possible. Emphasize sanitary features.

The following lesson was sent in by a New Mexico teacher.

Flies; A Project

I. Aim:

To show direct connection between fly and health of community.

II. Approach:

- A. Visit restaurants, markets, stores, etc., to see if they are desirable sources of food.
- B. Discuss good or bad points in handling foods—presence or absence of flies.
 - C. Observe garbage cans where flies breed.

III. Activities:

Raise flies through successive stages of development. Take census of fly breeding places.

Allow fly to walk across agar plate and count bacteria colonies.

Make and use fly traps.

Construct a screen food box.

Make cost estimate for screening home.

IV. Problems:

A. What conditions encourage presence and production of flies.

A. As to food—where are maggets most often found?

B. As to temperature—raise maggets in smoked ham and see in what temperature they mature best.

C. As to light and air—

B. Have we fly breeding places in our neighborhood? What can be done to improve conditions?

What can each do at home?

Plan reports of home progress in exterminating flies.

C. Is there any harm in flies walking over our bread, meat, etc?

The following lesson was sent in by a New Mexico teacher.

Fifth Grade Lesson on Sanitation

Pupil's Aim:

To learn why flies should be destroyed.

Teacher's Aim:

To teach about the fly and to show why it is an undesirable neighbor.

Lesson:

"Healthy Living"; read silently pages 179-183 and 190-192.

I. Stages of the life of the fly

A. Egg

B. Larva

C. Pupa

D. Adult

II. Harm done

A. Carries filth

B. Carries germs

Where are the eggs laid?

How long does it take before the eggs are hatched?

Describe the larva What is the next stage? What happens when the pupa skin splits? How long does it take for a fly to become grown? Where does the fly

breed?

How are germs carried? How is it possible for a fly to spread disease?

III How to fight the fly

A. Destroy breeding places

B. Keep yards clean

C. Screen doors and windows

Name the ways by which D. Kill by traps and by swatting flies can be destroyed.

IV. Conclusion:

As good citizens how can we help to get rid of this undesirable neighbor?

V. Correlation:

In art we made posters. In English we wrote stories.

Have demonstations of first aid treatment given by Boy Scouts from the upper elementary grades. Demonstrata resuscitation afterdrowning, temporary treatment for broken arm, leg cuts, bruises, excessive bleeding, as given in text and in Boy Scout Handbook. If no Boy Scouts are available use members of class only and follow directions of text and those of local doctor or health nurse. Have patient in hall or another room. Bring him in in the approved manner for carrying persons so afflicted. Two or three members of the class should take turns treating the different cases. The play should be taken seriously and questions should be asked either by the teacher or by members of the class as to reason for each step in the process.

(New Mexico Teacher).

GRADE OUTCOMES

Improve mastery of those knowledges, habits, skills, and attitudes attained in previous grades.

I. Knowledges.

- A. Personal Hygiene and Sanitation:
 - 1. Sources and carriers of infection in everyday life, and means of avoiding them as far as possible.
 - 2. Causes of tooth decay and measures useful in avoiding them.
 - 3. General structure and composition of the teeth.
 - 4. Scientific vocabulary for organs and processes of elimination.
 - 5. Arrangement for good lighting conditions while using the eyes.
 - 6. Avoidance of common sources of eye infection.
 - 7. Application of simple of the special senses.
 - 8. Reasons for avoiding use of common towels, or use of other person's wash cloths or toilet articles.
 - 9 Simple structure of the skin with names of the two layers.
 - 10. Function of the skin.
 - 11. Importance of the pores.
 - 12. Sources of local milk and water supply, and means of making them safe for use.
 - 13. Something of the municipal organization for protecting public health.

B. Nutrition, Rest, Air, and Sunshine:

- 1. Use of food in meeting the body's needs as to:
 - a. Building.
 - b. Energy-producing, and
 - c. Vitamins.
- 2. Nutritive elements that different foods supply the body.
- 3. Foods that should be regularly included in the diet.
- 4. Planning for simple meals and school lunches.
- 5. Constituents of a balanced diet.
- 6. General process of digestion in the mouth and stomach.
- 7. Sources, methods of cooking, and preservation of ordinary foods.
- 8. Relation of cost to food values.
- 9. Causes and treatment of malnutrition.
- 10. Necessity of plenty of rest, sleep, and sunshine.
- 11. The characteristics of fresh air and good ventilation.
 - 12. Importance of sleep, and evil effects of loss of sleep.
 - 13. Evil effects of diseased tonsils and adenoids.
 - 14. Function of the lungs.

C. Exercise and Posture:

- 1. Reasons why outdoor play is better for the skin, blood, and organs than indoor sports.
 - 2. Harmful effects of over-fatigue:
 - a. Lessens resistence to disease.
 - 3. Structural effects of poor posture.
 - 4. Hindrance of poor posture to digestion.
 - 5. The value of corrective exercises.

D. Clothing:

- 1. Kinds of clothing, in general, that are suitable for different temperatures and weather conditions.
- 2. Sanitary and asthetic value of clean clothing.
- 3. Relative cost of different kinds of clothing.

- E. Safety First, First Aid, and Contagious and Infectious Diseases:
 - 1. Traffic regulations in regard to crossing streets.
 - 2. Value of knowing how to swim.
 - 3. Safe use of electrical appliances and firearms.
 - 4. Proper use of fire alarms.
 - 5. Proper handling of gasoline, kerosene, and other explosives.
 - 6. Value of fire drills.
 - 7. Reasons for extinguishing bonfires and camp fires.
 - 8. General procedure in giving first aid in case of:
 - a. Hemorrhage,
 - b. Choking,
 - c. Fire in clothing,
 - d. Cuts and wounds,
 - e. Scalds and burns, and
 - f. Insect bites or stings.
 - 9. Impure air as a carrier of disease germs.
 - 10. Effectiveness of education in disease control. compared to laws or application of force.

F. Mental and Social Health:

- 1. Evil effects of the use of alcohol and other narcotics.
- 2. Habit formation.
- 3. Proper habits to form.

II. Habits and Skills:

- A. Personal Health and Sanitation.
- 1. Obey rules of Board of Health regarding communicable disease.
 - 2. Secure immediate assistance from the proper source in case of injury.
 - 3. Secure the position in which the light is good for reading or close work.

- 4. Brush teeth daily in an approved manner.
- 5. Eat foods which require mastication.
- 6. Have a cleansing bath and clean clothing more than once a week.
 - B. Nutrition, Rest, Air, and Sunshine:
 - 1. Sleep alone in a room well ventilated.
 - 2. Plan simple nutritious meals for individual needs.
 - 3. Choose fresh air recreation to indoor play.
 - 4. Relax properly when resting or sleeping.
 - C. Exercise and posture:
 - 1. Take part in group games and activities.
 - 2. Use moderation in running or jumping.
 - 2. Hold body in correct position when sitting, standing, walking, running, or lying down.

D. Clothing:

- 1. Wear clothing that is suitable to temperature and weather.
- 2. Keep clothing neat and clean.
- E. Safety First, First Aid, and Contagious and Infectious Diseases.
 - 1. Is willing to stay away from crowded places during an epidemic.
 - 2. Do not drink water from unknown wells, springs or streams, and provide one's own water for hikes.
 - 3. Try to keep wounds clean as a protection against infection.
 - 4. Never use gasoline or kerosene for lighting fires.
 - 5. Never build bonfires in dangerous places.
 - 6. Extinguish bonfires and campfires before leaving them.
 - 7. Use matches only for lighting purposes.
 - 8. Do not use dangerous fireworks.
 - 9. Use electrical appliances properly.
 - 10. Obey traffic regulations in regard to crossing streets.

- 11. Be able to give first aid treatment in
 - a. Hemorrhage,
 - b. Insect bites and stings,
 - c. Cuts and wounds,
 - d. Choking,
 - e. Clothing on fire, and
 - f. Burns and scalds.
- 12. Call for an older person in case of serious accidents.

F. Mental and Social Health:

- 1. Refrain from the use of alcohol and other narcotics.
- 2. Have self confidence.
- 3. Meet difficulties squarely.
- 4. Have a keen active interest in friends, sports, or hobbies.

III. Attitudes:

- A. Personal Hygiene and Sanitation.
 - 1. Cooperation with parents and health authorities in accepting preventive measures for communicable diseases.
 - 2. Enjoyment of being clean and well groomed.
 - 3. Willingness to cooperate with parents and school authorities in caring for the eyes.
 - 4. Appreciation of the value of good eyesight.
 - 5. Pride in clean teeth as a part of good personal appearance.
 - 6 Cooperation with nurse and dentist.
 - 7. Enjoyment of bath.
 - 8. Feeling that personal cleanliness is a pleasure and makes one agreeable to others, and gives self respect.
 - 9. Realization of the value of good hearing and a sense of responsibility in the protection of the hearing of others.

- B. Nutrition, Rest, Air, and Sunshine.
 - 1. Enjoyment of sleeping in a well ventilated room alone.
 - 2. Enjoyment of such foods as milk, hard breads, vegetables, whole wheat cereals, fruits, etc.
 - 3. Enjoyment of feeling of vitality that follows adequate rest and sleep.

C. Exercise and Posture:

- 1. Enjoyment of competitive and cooperative participation in games and sports with other children.
- 2. Appreciation of the value of good posture.

D. Clothing:

- 1. Regard for cleanliness and neatness in clothing as essential to good living.
- 2. Appreciation of the aesthetic value of clean simple clothing.
- E. Safety First, First Aid, and Contagious and infecttious Diseases:
 - 1. Wholesome respect for germs of a disease or infection, without undue fear of them.
 - 2. Regard for one's responsibility to protect other people from infection from which they may suffer.
 - 3. Appreciates the importance of self-control in case of an emergency.

F. Mental and Social Health:

- 1. Enjoyment of school work and play.
- 2. Appreciation of the value of a happy and cheerful disposition.

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SIXTH GRADE

SUGGESTED WEEKLY TIME ALLOTMENTS

The time allotted per week to health, physical, and safety education should be divided approximately as follows: recess, including supervised play, 150 minutes; physical training, 95; and hygiene, 50.

SUGGESTIVE ILLUSTRATIONS OF TEACHING

In the sixth grade the pupil is eager to know the why of things and the teacher will do well to encourage investigation. Give the pupil problems suitable for his age and advancement and encourage an inquiring nature in him. Give the pupil a chance to observe and tell what he has seen.

These illustrations are only suggestive, and should always be adapted to the particular situation. See also, suggestions of previous grades.

Weighing and Measuring

Make individual graphs showing weight from month to month. Indicate each month probable reasons for gain or loss.

Rules of the Game

This lesson, sent in by a New Mexico teacher, furnishes a good review of all the health rules and helps in developing health habits.

The children were interested in this activity because the main points of the lesson came from, not dictated by the teacher, and they were also interested because they were working with the idea in mind of making a health booklet.

The first day the health rules were studied from the text. Then the rules were given by the pupils, listed on the board and discussed. It took two days to accomplish

The pupils copied these rules so that they could take them home to help in finding magazine pictures to illustrate them. The third day, when the pictures had been collected the material (5 sheets of white construction paper for covers to be selected by pupils, and a third sheet of white construction paper 9" x 12", 2 sheets of colored paper for covers to be selected by pupils, and a third sheet of colored paper for cutting the letters for the book's name). The sheets were arranged in booklet form with brads. Next the letters were printed and cut out, then pasted on the cover with a suitable design. The next step was the pasting in of pictures to illustrate the rules — one good picture on each page will well illustrate the ten rules. Then came the printing of the rule under each picture. If this is done in ink and the pictures are carefully chosen, a very presentable booklet results.

The results of this problem were:

- 1. The selection of the pictures involves a repetition of the rules in the pupils' minds; the rules become firmly established.
- 2. Much extra health knowledge is brought out in naming and selecting good pictures.
- 3. Knowledge of color selection is brought out.
- 4. Knowledge of letter cutting, arrangement of letters and pictures is involved.
- 5. Knowledge of types of lettering, etc. is gained.
- 6. Habits developed: of neatness, self-reliance and ability to work rapidly, accurately and quietly.
- 7. Skills developed: lettering, illustrating, color harmony, and stating rules clearly in good English.
- 8. Attitudes developed: scientific (Interest in learning more of the details of precuation, preventatives of diseases, and how scientific men carry on their studies of the various health phases.)

 Other lessons from New Mexico teachers to illustrate health rules.

Community Health.

- A. Teachers' Aim: To impress that carelessness in home, school, and community may endanger health and life of many others.
- B. Pupils' Aim: To make a community health chart.
- C. Material: Paper and pencil.
- D. Presentation:
 - 1. Name as many reasons as you can to show that to be a good citizen each person must care for the well-being of all.
 - 2. Discuss the ways in which rural homes are responsible for public health.
 - 3. Name principal ways in which the town or city homes should seek to promote neighborhood health.
 - 4. Give several requirements of a good school citizen with respect to health.
 - 5. Tell ways in which the community may promote the health of its citizens.
 - 6. How many would like to give our town a grade on its ways of promoting health?
 - 7. Explain health chart in *Physiology and Hygiene* by Emerson and Betts.
 - 8. What can we do as school children to promote better health in our community?
- E. Summary. How does our carelessness endanger the health and lives of others in the community?

Teeth.

- A. Teachers' Aim: To help children to understand the construction of the teeth and the relation of the teeth to good health.
- B. Pupils' Aim: To learn the different parts of the teeth and what pupil must do to prevent ill health caused from bad teeth.
- C. Preparation: Have drawn on the board when class period opens a cross-section of a tooth.

Assign the day before the following topics to pupils to prepare papers and report in class.

- 1. "Tooth Decay and its Causes."
- 2. "Why Candy and Other Sweets Cause the Teeth to Decay."
- 3. "Bad Teeth Cause Sickness."
- 4. "Care of the Teeth."

Have pupils not assigned topics bring to class a drawing showing the different names of the teeth, taken from text. Also bring to class a list of foods for good strong teeth. Have pupil assigned topic 4 bring tooth brush to class for illustration.

Approach and Recitation

With drawing on board, have pupils point out different parts of tooth, name permanent teeth and when they appear. Discuss "When we get our teeth" and "How to care for teeth" with the lists of foods and report No. 1. Discuss "Importance of brushing teeth" and hear reports No. 2 and No. 3. Discuss "Directions for brushing teeth" and have report No. 4 and demonstration with brush and water.

Baths.

Make this little experiment to see why baths are necessary. Get a piece of window glass. Polish up one part of it. Rub a little oil on the next part. Stir up a teaspoonful of salt in half a cup of water, and when it is dissolved, put half a teaspoonful of salt water on the third part of your glass. Let the glass lie by an open window till next day. Which part of the glass is cleanest? Do you see why our faces gather so much dirt? Why bodies and clothes sometimes have bad odors, if not washed often enough? (Modern Hygiene and Health).

Daily Inspection

If the pupils have had proper training in the first five grades, no formal inspection will be necessary. If not, and the teacher finds need for it, she may refer to illustrations in previous grades.

Games and Play

Athletic games such as volley ball, baseball, and basket ball are interesting to sixth grade pupils. If other games are wanted, see references.

Correlation with Other Subjects

Language:

Have pupils make short talks for programs of various kinds; write letters to State Board of Health asking for information; compose short compositions on various health topics and health heroes; write letters to homes in the community asking co-operation in fly-extermination campaigns, etc.

History:

Study lives of men such as Boone, Clark and Lincoln, to find out what health habits they had that enabled them to do their work; Burbank and Roosevelt, etc., to find what they did to improve their, health; Clara Barton and Frances E. Willard to find out what they did for the health of the people.

Make individual scrapbook, "My Health Book." Collect for it slogans, menus, pictures, health records, weight charts, songs, etc.

Art:

Have pupils make covers for the above scrapbook, or other health booklets.

PROJECT

Civics and Health

General Aim:

To develop an active civic consciousness through participation by the children in civic health problems.

Teachers' Aim:

To teach the children (1) how the community protects the health of its people, and (2) how children citizens can help in its health program.

Children's Aim:

To find (1) how the community protects the health of its people, and (2) what the sixth grade as a class and as individuals can do to improve and conserve health conditions.

Launching the Project:

Begin with a careful medical examination and teacher's health survey leading to the checking of personal health habits. Then make the approach to community health first by a discussion of public utilities introduced by pictures and story and a talk on some recent occurrence such as a street car accident. After this let the pupils examine the contents of the text and develop a discussion of which topic is most important to the health of the local community, illustrating with blackboard drawings. The teacher should make use of any recent occurrence in the community which has a bearing on public health, such as an epidemic of any kind, and the measures taken to meet it.

Thought content:

I. Public utilities and supplies and how they affect the health of the people.

A. Water

- B. Sewerage
- C. Garbage disposal
- D. Light
- E. Streets and sidewalks
- F. Food protection at sources of supply
- G. Movies (why censored mental and moral hygiene)
- II. What can we as sixth grade citizens do to help to protect the health and safety of our community?
 - A. Be healthy and careful citizens
 - B. Join the "Civic Clean Up Campaign"
 - C. Be crusaders for public health
 - D. Study contributions to public health by some of the generals of the public health army of the world
 — Jenner, Pasteur, Trudeau, Reed, Gorgas.
 - E. Study the vermin menace
 - F. Destroy breeding places of rats, flies, mosquitoes.

Procedure:

September - Have children make a survey of some public utility such as a water plant, and make special reports and talks which may be correlated with the English work.

October — Lead on to a discussion of the part played by other public utilities and supplies in maintenance of the health of the community. Divide class into groups to make surveys and reports of the light plant, markets, grocery stores, etc. A model city block may be built of boxes carefully placed on the sand table and later become a nucleus for a model town to be used for a health exhibit.

November — The study of local health laws can be introduced by a talk from the county health officer. Letters may be written to the state health department for copies of the state health laws and for bulletins on public health subjects.

December — Use Red Cross activities to develop the idea of service to the needy at home and abroad, and the

story of the Christmas Seals to open the discussion for the Christmas Seals Campaign of the National Tuberculosis Association.

January — Health playlets may be presented at intervals at the assembly hour.

February — Begin the second semester's work with a careful re-checking of personal health requirements, clean-liness, neatness, sufficient sleep with windows open, outdoor play, etc.

The safety idea may be expanded from avoiding accidents to include avoiding disease.

Original mottoes and charts may be on both subjects. March — Have class write a health story, as an English correlation. This may be afterwards dramatized by the children. As a part of the city clean-up campaign, have

class write papers on flies and mosquitoes.

April and May — The work of the latter part of the school year may revolve around a careful checking of what has been learned during the year, how it has been applied, the practical results achieved preparation for a health exhibit.

Additional means for vitalizing health in the sixth grade.

A club called "The Civic Health Club" may meet weekly throughout the year. If an experienced leader is available, a Little Mother's Club may be organized for the girls where simple talks on the physical care of the baby and on their own individual health problems may be given. A complete layette for the baby may be made in their domestic art work and given to a needy person.

In English, a debate, "Resolved that the fly is a greater menace than the mosquito" will arouse interest. In Manua: Training, flytraps, swatters, cabinets for medicine and individual drinking cup may be made. Booklets and posters may contrast health conditions of ancient, medieval and modern history.

The observance of rat week, fire prevention day, accident prevention week, clean-up campaign and May Day festival opening health week, can each be made to contribute materially to the social consciousness and loyalty of the entire group.

The success of the project should be measured by the happiness and enthusiasm in the work and the practical results achieved by it.

"A Health Education Procedure "by Kathleen Wilkinson Woottem.

Other suggestions for projects.

I. What health giving foods shall we plant in our gardens? Use either school garden or garden at home. Study classes of foods — energy givers, body builders, and body regulators. Make charts from catalogue pictures these groups. Study what each group does for the body. Plan a garden with these facts in mind.

II. Stocking our engineer.

Since we are going to find out something about our engine's fuel, let us make a food-book. Make a scrap book first. On the outside paste a picture of the healthiest boy or girl you can find. In it we will put pictures of foods we learn about and stories about experiments we may make in studying about our body's fuels.

First, let us find out something about starch, because it is one of our best fuels. Get together a potato, a knife, a glass of water and a piece of clean, thin white goods. Now we will "make" starch. Peel the potato, scrape it very fine and tie up the scrapings in the cloth. Now squeeze the cloth in the water, till water gets milky-white. Let this milky water stand until next day. What you then see at the bottom of the glass is starch. Pour off the water care-

fully and let the starch dry. Does it look like the corn starch your mother uses? Put some of the starch in the glass again, add a little water and a few drops of iodine. Only things that contain starch turn this color when iodine is added. Bring samples of other foods to school to test. Make a list of foods that are fuels for our body's engines, because they contain starch. Put the story of your experiment of food tests in your scrap book.

Try to find out how corn starch is made in factories.

Find out what foods have fat or oil in them, for they, too, are fuels for our engines. Mash the food on a piece of thin smooth paper and, after it is dry, look for a grease spot. Try some nuts, some milk, and any other common foods you want to test. Put your results in your food book.

Find out where the fats and oils we use come from. Make a visit to a sanitary dairy farm. With mother go to the grocers, to the butchers, to the bakers. Look around and notice everything that is done to protect the food for sale from dust or dirty fingers. Could you suggest any more care to take?

Add to your food book pictures of the new fuel foods you have learned, the new growth making foods, the new protection foods you now have learned.

III. Make a little house of a chalk box.

- 1. Stand box upon its narrow end.
- 2. Cut away grooves in which the lid ran, and smooth edges.
- E. On each of the two sides, bore two round holes for windows, one near the bottom, one near top of box.
- 4. Find 4 corks that will close these windows.

- 5. Bore another hole in roof of your house and get a lamp chimney to put over it. Can you think why?
- 6. Now have someone, druggist perhaps, cut a piece of glass exact size of the opening of your box.
- 7. Fasten this on with a strip of gummed tape, for a door.
- 8. Arrange a latch (a rubber band fastened to glass door with gummed tape, can be slipped over a tack on side of box).

To use your house.

- 1. Fasten a candle on the floor, under the hole in the roof.
- 2. Light candle.
- 3. Close all windows with corks.
- 4. Close the door tightly and watch the candle.
- 5. After it has gone out, light it again, but this time try opening different windows.
- 6. Hold a piece of smoking incense at the open windows and notice where the smoke goes.
- 7. Find out which combination of open windows make the candle burn best.
- S. Find out how the air moves each time. This will explain why the candle burns best.
 - "Modern Hygiene and Health" by Haviland.

Devices for teaching physiology.

Explain cell structure by showing how the orange is made up of countless small globules. With needles, a globule may be lifted out and opened. Show how each is composed of a thin wall, some inner fibre, and a small amount of fluid. Show how growth of orange is made possible by nourishment from tree sap, which in turn was manufactured with aid of water, air, food from soil, and sunshine Body cells are nourished by food elements carried in the blood, etc.

Name elements.

Compare the body to a gasoline engine in which several different parts are organs, and different metals and liquids are tissues. Show how each part is essential to work of all; how all must be in perfect condition.

Compare movement of body part with lever and fulcrum, block and pully, hinge, joint action, etc.

Use example of a fish backbone in discussing structure of spine.

Liken the process of oxidation to the burning of paper in the air. There is a change of substance. Oxygen is used and the waste or ash remains.

Describe the heart as a pumping station which by rhythmic muscular contraction forces the blood through the vessels which are the pipelines of the system.

Demonstrate circulation of blood and lymph by placing a celery stalk or white carnation in a glass containing diluted red ink.

The sponge furnishes a good illustration of inhalation and exhalation. Allow to expand in water; it fills; squeezed by hand, the water is forced out.

When studying the sections of physiology, let each child make a picture note book, making each section a chapter, such as "Framework of the body." Pupil will cut pictures out of papers or magazines that pertain to the topic and paste in the note book. Pictures may be drawn.

Examine an orange skin. Cut sections through the think rind. Look at the edge. See the pockets or holes where the oil lies, close to the outer skin. Examine the skin on the back of your hand. A lens will help. Find the hairs. In the palms of your hands, find the rows of tiny openings of the sweat glands.

GRADES OUTCOMES

(Improve mastery of those knowledges, habits and skills and attitudes attained in previous grades).

I. Knowledge:

- A. Personal hygiene and sanitation.
 - 1. Intestines, kidneys, skin, and lung structure and functions.
 - 2. Assistance in elimination from intestines, kidneys, skin and lungs.
 - 3. Skin is an organ of the body and should be treated with consideration.
 - 4. Existence and administration of the safe milk and pure water organizations.
 - 5. Organizations of school, home and community regarding sanitation of garbage and against mosquitoes and flies.
- B. Nutrition, Rest, Air, and Sunshine.
 - 1. Use of food in meeting bodily needs.
 - 2. Elements of nutrition that different foods supply to the growing body.
 - 3. Attractive meals, including proteins, carbohydrates, minerals, fats, and vitamines, which help to procure good digestive systems.
 - 4. Federal and state laws concerning alcohol and narcotics.
 - 5. Health and growth can be achieved by sleeping long hours with windows open.
 - 6. Fresh air and sunshine is necessary.
- C. Exercise and Posture.
 - 1. Eye sight that is poor results when correct posture is ignored.
- D. Clothing.
 - 1. Costume designing teaches proper selection of materials, colors, styles, and models.

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- E. Safety First, First Aid, Contagious and Infectious Diseases:
 - 1. Realization of dangers from accidents in factories. and establishment of Safety First slogans, First Aid stations, and permanent nurses.
 - 2. Safety First devices are installed.
 - 3. Railroad and high way signals are to be obeyed.
 - 4. A wounded joint or limb is to be disinfected and held in proper position.
 - 5. Haste in resuscitation is necessary for cessation of breath for longer than two minutes is usually total.
 - 6. Corrosion of the mucous membrane and convulsions result from poisons.
 - 7. Fatigued bodies invite germs.
 - 8. Laws and services of health boards in combatting disease.

F. Mental and Social Health:

1. Relaxation and poise of mind and health results from proper control and training of mind and nervous system.

G. Physiology.

- 1. Joints, and Muscles create a strong person.
- 2. Digestion is produced in mouth, stomach, large and small intestines.
- 3. Good elimination is a result of proper excretion from kidneys, intestines, and skin.
- 4. A healthy nose, skin, and lungs produces healthy respiration.
- 5. Circulation is thru the blood arteries, veins, and heart.

II. Habits and Skills.

- A. Personal Hygiene and Sanitation:
 - 1. Assists body in all proper and rational functionings.

- 2. Advocates and drinks pure water and clean milk.
- 3. Aids School, home and community in beautifying premises.
- B. Nutrition, Rest, Air, and Sunshine.
 - 1. Eats nutritous foods at regular times.
 - 2. Drinks 4 to 5 glasses of water daily.
 - 3. Sleeps with windows open.
 - 4. Prefers outdoor games.
 - 5. Realizes value of Federal and State Law enforcement.
- C. Exercise and Posture.
 - 1. Reads with light over shoulder.
 - 2. Holds book correct distance from eyes.
 - 3. Has examination of eyes.

D. Clothing.

- 1. Selects and designs clothes that are becoming, neat, and conservative.
- 2. Airs the clothing every night.
- E. Safety First, First Aid, Contagious and Infectious diseases.
 - 1. Enters and leaves buildings and cars in a safe way.
 - 2. Refrains from playing around railroads and highways.
 - 3. Is able to give simple First Aid treatment for minor cuts, bruises, and nose bleed.
 - 4. Observes laws of health Board.
 - 5. Refrains from eating unknown foods.
 - 6. Uses no tobacco, alcohol, or narcotics.
- F. Mental and Social Health.
 - 1. Remains good natured under trying circumstances.
 - 2. Refrains from brooding and worrying.
- G. Physiology.
 - 1. Exercises so that a well developed body will result.
 - 2. Train digestive organs to function.
 - 3. Breathes properly.

4. Recognizes the proper functioning of the organs of circulation.

III. Attitudes:

- A. Personal Hygiene and Sanitation.
 - 1. Desire for proper functioning of bodily organs.
 - 2. Enjoyment of clean milk and pure water.
 - 3. Wholesome respect for germs of disease and infection.
 - 4. Responsibility in regarding protection of others against infections.
 - 5. Enjoyment of beauty and cleanliness in school, home and community.
- B. Nutrition, Rest, Air, and Sunshine.
 - 1. Enjoyment of personal responsibility in choice of wholesome foods.
 - 2. Appreciation of values of nutritious foods.
 - 3. Satisfaction of sleeping long hours.
 - 4. A desire to play in the sunshine.

C. Exercise and Posture:

- 1. Proper lighting requested for reading in school and home.
- 2. Enjoyment of simple eye exercise.
- 3. Pride in attaining good records in eye tests.
- 4. Appreciation of values of good posture to perfect eye development.

D. Clothing.

- 1. Simple pride in well groomed appearance.
- 2. Desire of designing clothing on economy basis.
- 3. Satisfaction in designing individual clothes.
- E. Safety First, First Aid, Contagious and Infectious Diseases:
 - 1. Precaution against unnecessary risks.
 - 2. Retainment of self control.
 - 3. Understanding of detrimental effect of alcohol and other narcotics on health.

- 4. Knowledge of dangers of infectious diseases.
- 5. Respect of value of local and other state laws.

F. Mental and Social Health:

- 1. Appreciation of effects of happy thoughts and acts on self and others.
- 2. Satisfaction of well regulated mind and body.

G. Physiology:

- 1. Realization of reward of health from proper care of the body.
- 2. Chronic diseases result from lack of care of minor ailments.

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SEVENTH GRADE

Suggested Weekly Time Allotments

The time allotted per week to health, physical and safety education should be divided approximately as follows: recess, including supervised play, 150 minutes; physical training 100; and hygiene, 50.

SUGGESTIVE ILLUSTRATIONS OF TEACHING

In the seventh and eight grades, responsibility and initiative increases, and not only in improvement in items of previous grades looked for, but more advanced illustrations may be used. See also illustrations for previous grades.

Weighing and Measuring

Each pupil should keep his own record of weight and height. Many seventh and eighth grade pupils would be capable of aiding the pupils of the lower grades. In one and two room schools, the teacher might turn over to some seventh and eight grade pupils the entire responsibility for the weighing and measuring of pupils in the lower grades.

Rules of the Game

A Health Creed

I will keep my body clean within and without;

I will breathe pure air and I will live in the sunlight;

I will do no act that might endanger the health of others;

I will try to practice the rules of healthy living;

I will work, read, and play at the right time and in the right way, so that my mind will be strong and my body healthy, and so that I shall lead a useful life and be an honor to my parents, to my friends and to my country.

"Our Health Habits" by Whitcomb Beveridge.

A lesson plan sent in by a New Mexico teacher:

Planning Meals

Topic	Vitamins
	To give pupils knowledge of vita-
	mins.
Pupil's Aim	To learn what vitamins are and
	their place in the diet.
Preparation	
	diet:
	1. Carbohydrates
	2. Proteins
	3. Fats
	4. Mineral matter 5. Water
	Vitamins just as necessary.
Presentation	Vitamins just as necessary.
	vital to life-growth
	work on vitamins very recent
Kinds	
Diseases caused by la	ack of each:
AEye d	
BScurv	у
CBeri-b	eri
DRicker	ts
Foods containing each	h vitamin:
AFat for	oods
1. Codl	iver oil
2. But	ter
3. Crea	ım
4. Egg	
5. Chec	
Vegeta	bles

ed .	m			
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2. Spinach

B____Leafy vegetables

Yeast

C ____ Citrus fruits

D____Codliver oil
Sunshine

Generalization

Vitamins, like the five foodstuffs, each have their particular functions and taken together produce a healthy body.

Application _

- 1. Make charts of each vitamin
- 2. Introduce vitamins into the daily diet a. Making of menus

Daily Inspection

If the pupils have had proper training in the previous grades, no formal inspection will be necessary. If not, and the teacher finds needs for it, she may refer to illustrations in previous grades.

Games and Play

Divide the girls and boys into two teams, each pair of groups being approximately equal in athletic ability. Decide at a meeting of both groups which athletic activities are to be included in the contest and the relative value in points to the winners, as; 5 for the first place, 3 for second, and 1 for third.

Have each pupil make a chart for his individual record. Also have two large charts, one for boys and one for girls. Average up the scores at the end of each week. Rearrange members of the groups to secure greater competition.

bar. (2) Broad jumping. (3) High jumping. (4) 50 yd. 75 yd., and 100 yd. dashes. (5) Shot-put, and (6) Vaulting.

Suggested activities for girls are: (1) Basket-ball. (2) Throwing base-ball. (3) Throwing basket-ball. (4) Jumping. (5) Chinning the bar. (6) 60 yd., 75yd., and 100 yd. dashes.

A Suitable Yell

Health Workers! Health Workers! Rah! Rah! Rah!

Health Workers! Health Workers! Ha! Ha! Ha!

We have ginger, We have pep, Health Workers! Health Workers! Yep! Yep! Yep!

"Our Health Habits" by Whitcomb Beveridge.

The setting up exercises may be used in these grades. Walter Camp's "Daily Dozen" explains the essential movements desired.

If equipment can be secured, tennis tournaments should be held.

Correlation with Other Subjects

Tune: "There's a Long, Long, Trail"

Oh, the health campaign is with us,
And we must strive to see it through,
So, it's work, and work, and work some more
For me and you.

We must always keep on caring
To build our bodies strong and free,
For we wish to show our country
What boys and girls can be.

Oh, the health campaign's not easy As you perhaps may think,

For there's work, and work, and then more work, From which we must not shrink.

'Our Health Habits" by Whitcomb Beveridge.

A hike or a picnic in the woods, combines health teaching and nature study. Encourage the joining of Boy Scout, Girl Scout, Junior Red Cross and other organizations.

Many pupils of the seventh and eighth grades are capable of writing safety plays, health pageants, slogans and material for a health magazine for the school room. Proceed somewhat as follows for developing a play. Decide on a health situation to be dramatized. Decide on the characters needed and write the dialogue for them. Select a name for the play.

Study about physical training among the Greeks and Spartans.

In these grades detailed arithmetic problems on the cost of food and clothing may be used. Secure grocery catalogues or newspaper advertisements and base the problems on the prices found there. Also have problems on cost of homes, built for health and sanitation.

When discussing the making of gardens, the subject of fertilizer will come up. Then the study of Muscle Shoals, will make a good correlation with geography and history.

The history of lighting facilities, history of our knowledge of germs, history sanitation and housing will be a part of the teaching of history.

For other suggestions in correlation see methods and illustrations for fifth and sixth grades.

Projects

A Feeding Project — For 7th grade boys. Time given to experiment — 90 days.

Teacher's Aim:

To interest boys in hog raising and at the same time to teach them the importance of a balanced ration

Pupils' Aim:

To learn how to raise hogs successfully and also to learn the importance of a balanced ration.

Launching the project:

A visit from the farm demonstrator to give the boys a practical talk on pig clubs and arouse their interest in the experiment, is a good way to begin. Follow this by a discussion in which the farm demonstrator and teacher offer practical suggestions. If possible interest a neighbor in donating two pigs, four months' old, litter mates are best for this experiment. In the manual training period, two strong pig pens with floors may be built.

Procedure:

Feed one pig an unbalanced ration of corn and water only. Pay no attention to parasites internally or externally, and give no minerals. Feed other pig a balanced ration of corn, tankage, peanut meal, wheat shorts, together with a mineral mixture, consisting of charcoal, hard wood ashes, lime and salt. Keep this pig free from parasites, lice and intestinal worms, using oil for the former and santonin for the latter.

To maintain interest have the boys furnish the feed and care for the pigs by twos in rotation. The proceeds from the sale of the hogs may be used to buy a spring baseball outfit for the class, and in this way stimulate an interest not only in pig raising but also in vigorous outdoor play. "Health Education Procedure" by Kathleen Wilkinson Wootten.

The above project may be varied by using guinea pigs or rabbits.

Where there is no domestic science equipment, the teacher may discuss cooking and recipes with the upper

grade girls. Then assignments are made for home work. On an appointed day, the girls bring the finished products to school and they are judged either by the teacher, or a group of parents. A little prize or some special privilege is awarded to the winner. On these days the school has a party or picnic, and the girls serve their own products.

A New Mexico teacher tried this plan, and the parents became so interested that they supplied the school with needed equipment.

Sewing may be worked out in the same way.

The same teacher referred to above, planted seeds in boxes in the schoolroom, then let the pupils take the plants home and make gardens, reporting progress from time to time. The seeds were planted in paper bags so that the plants could be taken home just as they grew in them and it was found they did not even wilt.

In this same school the teacher found the light from big old fashioned windows shone too strong directly on the pupils. Need for sash curtains was seen, when the pupils studied lighting. By embroidering and stenciling grain sacks and sugar sacks very artistic effects were secured and the lighting problem was solved.

New Mexico has such an excellent 4-H Club organization that many projects on the subject of health may be worked out that way. Write to the Extension Department, State College, New Mexico, for information or see the county agent and home demonstration agent. They foster organization of such clubs as hot lunch clubs, cooking clubs, seving clubs, rabbit clubs, chicken clubs and garden clubs.

The boys might be interested in lighting and wiring a two-story doll house for the first grade children.

If there is a special disaster in some section of the globe and the Red Cross is asking for funds and food, have the pupils plan a relief ship or train to send the sufferers.

Such questions as these will be answered. (1) What would you send? Why? (2) Why would you send canned

milk, vegetables and fruits? What clothing will these particular people need?

There should also be a discussion of the causes for the disaster and what should have been done to prevent it, thus bringing in the subject of safety.

After such a project enroll the room in the Junior Red Cross, if it has not already been done.

A DEVICE FOR TEACHING PHYSIOLOGY

Get some hydrochloric acid, a saucer and some teeth from a dentist. Boil the teeth for half an hour in water and some teeth from a dentist. Boil the teeth for half an hour in water and soda before using them. Put a little acid on the shining enamel. Crack open a tooth and put some acid on the cracked part. Find the dentine and pulp cavity. What has the acid done? What does this tell you about the use of enamel?

"Modern Hygiene and Health" by Haviland.

GRADE OUTCOMES

(Improve mastery of those knowledges, habits and skills, and attitudes attained in previous grades).

I. Knowledge:

- A. Personal Hygiene and Sanitation:
 - 1. Symptoms and indications of defects of the eye, ear, nose and throat and of how these defects may be prevented and remedied.
 - 2. Evil effects of cosmetics on respiration due to closing up of pores and the dangers of exchange of powder puffs, lipsticks, etc., between individuals.
 - 3. Organization, administration and supervision of the local and state health boards and officers and their legal basis of authority in their relation to securing of safe milk and water.

- 4. Percentages of tuberculosis, typhoid fever, etc., cases due to impure water and milk and the feasibility of preventive measures with the resulting saving of life and money.
 - a. Tuberculin tests, certified milk, typhoid tests, etc.
- 5. Ideal plans for the location of home and school and ideal plans for construction of different priced homes.
 - a. Improvement in sanitation of present plants by care of backyards, alleys, cellars, etc.

B. Nutrition, Rest, Air, and Sunshine:

- 1. Ideal menus that are attractive and appetizing and are suited to needs of individuals or agegroups as indicated by protein, carbohydrate, mineral, fat, and vitamin content and their assimilation or digestive value.
- 2. Benefits of night clothes, bedroom ventilation, and complete relaxation for sleep.
- 3. Cubic feet of air per unit of time per individual needed and germ, carbon dioxide, moisture, etc., content of lesser amounts.

C. Exercise and Posture:

D. Clothing:

- 1. Materials, colors, and styles suited to different types of individuals and the choice of clothing for other members of the family.
- 2. Proper methods of packing clothing for storage or for travel.
- E. Safety First, First Aid, Contagious and Infectious Diseases:
 - 1. Causes of and losses due to forest fires.
 - 2. Procedure in carrying those injured in water, fire, smoke, falls.
 - 3. Steps in restoration of respiration.

- 4. Safe ways in removing objects from special senses and organs and use of sterilizing materials.
- 5. Counteraction of bases and acids.
- 6. Legal basis, benefits, and use of quarantine laws in diseases of humans, animals, and plants.

F. Mental and Social Health:

1. Efficiency resulting from concentration and organization and from methodical attacks on problems.

G. Physiology:

1. Inter-relation of functions of physiological organs and their inter-dependency.

II. Habits and Skills:

- A. Personal Hygiene and Sanitation:
 - 1. Curtails the use of cosmetics.
 - a. Use of individual materials.
 - 2. Uses milk and water that have been properly tested.
 - 3. Removes industriously tin cans, garbage, manure, weeds, etc., around home and school.
 - 4. Examines periodically the special senses and organs.
- B. Nutrition, Rest, Air, and Sunshine:
 - 1. Eats properly balanced meals suited to individual needs.
 - 2. Changes clothes for sleep.
 - a. Suited to weather—of comfortable materials.
 - 3. Secures a standard amount of pure air.
 - a. Cubic feet per individual.

C. Exercise and Posture:

D. Clothing:

- 1. Wears clothes adapted to proper aesthetic balance for the individual.
- 2. Strives for modesty and conservation in dress.
- 3. Knows neat and efficient packing of clothing.

- E. Safety First, First Aid, Contagious and Infectious Diseases:
 - 1. Puts out all camp fires.
 - 2. Observes quarantine regulations.

F. Mental and Social Health:

- 1. Applies concentrated effort on immediate problem.
- 2. Develops definite organization of materials before attacking problems.

G. Physiology:

- 1. Uses physiological terminology.
- 2. Visualizes conception of functions.
 - a. Respiration, circulation, digestion, musculatory system, nervous systems, etc.
 - (1) i. e. nervous system compared to telephone system, heart chambers and action to pumping systems, etc.

III. Attitudes:

- A. Personal Hygiene and Sanitation:
 - 1. Pride in efficient special senses and organs.
 - 2. Satisfaction in healthy skin of good appearance without the need of artificial "make-up."
 - 3. Exactitude in desire for pure milk and water.
 - 4. Desire for beauty and cleanliness in home, school and community.
 - a. Abhorrence of unsightly backyards, alleys, etc.

B. Nutrition, Rest, Air, and Sunshine:

- 1. Pleasure in preparing and assisting at attractive and well balanced meals.
- 2. Appreciation of food values as compared in dollars and cents and in nutritive value.
- 3. Desire for sufficient amounts of pure air and sunshine.
- C. Exercise and Posture:

D. Clothing:

- 1. Modesty in dress and desire for good appearance in dress.
- 2. Feeling of responsibility in selection of clothing for others.
- E. Safety First, First Aid, Contagious and Infectious Diseases:
 - 1. Proper feeling of individual responsibility for fire prevention and protection.
 - 2. Co-operation observance of health laws and regulations.
 - a. Quarantine, water inspection, etc.

F. Mental and Social Health:

1. Responsibility for tasks assigned and efficient completion thereof.

G. Physiology:

- 1. Appreciation that human body is a delicate and complicated machine deserving of proper care and upkeep through:
 - a. Cleanliness, moderate use, exercise, proper fuel or food, etc.

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- Turned and Collins, Community Health, Ventilation, 126-138.
- Andress and Brown, The Way to Health, Healthful Air, 166-179.
- Andress and Evans, Health and Good Citizenship, Respiration and Ventilation, 113-128.
- Bigelow and Broadhurst, Health in Home and Neighborhood, Air Changes, 172-174.
- Ritchie, Primer of Sanitation and Physiology, Ventilation, 286-296.
- Metropolitan Life Insurance, New York City, (Welfare

Division, School Health Bureau) Millions of dollars Worth of Health; Janitor and School Child.

V. Clothing

Emerson and Betts, Physiology and Hygiene, Book Two.

Andress and Brown, Science and the Way to Health, Dress for Comfort, Beauty and Economy, 261-269.

Andress and Evans, Health and Good Citizenship, Clothing, 136-139.

Bigelow and Broadhurst, Health in Home and Neighborhood, Clothing, 211, 208, 139, 261.

Proctor and Gamble, Cincinnati, Ohio, Approved Methods of Home Laundering.

VI. Posture

Emerson and Betts, Physiology and Hygiene, Book Two, Causes and Effects, 286.

Andress and Brown, Science and the Way to Health, Good appearance, health, and posture, 231-246.

O'Shea and Kellogg, Book Two, Keeping the Body in Health, 160-164.

Ritchie, Primer of Sanitation and Physiology, 257-259.

O'Shea and Kellogg, Keeping the Body in Health, 160-164.

Andress and Evans, Health and Good Citizenship, 42, 47, 53, 371.

American Posture League, Madison Avenue, New York City.

U. S. Department of Labor, No. 165.

VII. Exercise

Emerson and Betts, Physiology and Hygiene, Book Two, Health Exercises and Physical Efficiency, 337-349.

O'Shea and Kellogg, Keeping the Body in Health, 177-189.

Turner and Collins, Community Health, Physical Education 205-209.

Ritchie, Primer of Sanitation and Physiology, 185, 268, 274, 405.

Andress and Evans, Health and Good Citizenship, 30-31, 325, 327, 328.

VIII. Sanitation

- Emerson and Betts, Physiology and Hygiene, Book Two, Safe Milk and Water, 180-181; School, Home and Community Sanitation, 180-184; 252, 261, 227-241.
- Turner and Collins, Community Health, Water Supply, 24-40; Waste Disposal, 77-93; Other problems of City Housekeeping, 94-107; The Health Department, 148-169; Wide-Awake Healthful Community, 333-347.
- Andress and Evans, Health and Good Citizenship, Purity of Water, 282-288; 325-327; Pure Milk, 290-298; War on Insects and Rats, 299-313; Health Departments, 350-362.
- Bigelow and Broadhurst, Health in Home and Neighborhood.
- Whitcomb and Beveridge, Our Health Habits, Home 353-367; School, 432; City, 429.
- Wooten, A Health Education Procedure, The School House, 27-47.
- Ritchie, Primer of Physiology and Hygiene, Safe Milk, 151, 157; Disease Germs in Water, 86-95; Unhygienic, Habits, 164, 171; Public Sanitation, 171-177; What The Government Can Do, 177-187; Practical Sanitation, 187-193; Mosquitoes, 110-117; The House Fly, 145-151.
- Iowa Tubercular Association, 518 Century Building, Des Moines, Iowa, "A Pageant in the Interest of Good Health".
- National Diary Council, 910 South Michigan, Chicago.

IX. Safety First

Emerson and Betts, Physiology and Hygiene, Book Two, Common Home and School Accidents, 317-333; Fire Prevention, 325; Safety First, 333-336. Andress and Brown, Science and The Way to Health, Accidents, their treatment and prevention, 18-96.

Turner and Collins, Community Health, Safety, 170-183.

Andress and Evans, Health and Good Citizenship, Safety First, 170-178; Common Causes of Accidents, 175-177.

Whitcomb and Beveridge, Our Health Habits, Safety First Rules, 458-466; At Home, 459; At School, 463; Carelessness, 459; Fires, 461, 464, 465; Wires, 461; General, 462; Street, 462; Railroads, 462.

Wooten, A Health Education Procedure, 123-129; 308-313; 267.

Education Division of National Safety Council, one Park Avenue, New York City, Safety Education Magazine, (10c a copy.)

National Safety Council, 108 E. Ohio Street, Chicago.

X. First Aid

Emerson and Betts, Physiology and Hygiene, Book Two, General Procedure in Emergencies, 317-332.

Andress and Evans, Health and Good Citizenship, What to do in an Emergency, 182-190.

Boy Scout Handbook, Safety, 335-382.

Ritchie, Primer of Sanitation and Physiology, Accidents, 127-131.

Wooten, A Health Education Procedure, 357, 362, 368. First Aid defined, 142; Health Clubs, 279-280; Lesson Plans, 284-286; Methods and Materials, 269-290.

Whitcomb and Beveridge, Our Health Habits, 435-457.

Bigelow and Broadhurst, Health in Home and Neighborhood, 185-294.

XI. Contagious and Infectious Diseases

Emerson and Betts, Physiology and Hygiene, Book Two, Common Carriers, 228-234; Disease Control, 245-261; Laws and Service, 256-257.

Andress and Brown, Science and The Way to Health, Valiant Health Knights, 26-69; Colds, 70-77.

Andress and Brown, Health and Good Citizenship, Two Health Heroes, 213-219; Trudeaus' Great Victory, 220-228; Away with Colds, 229-235; Protection of Children, 236-243.

Andress and Evans, Health and Good Citizenship, Protection of Children against Illness, 236-245.

Turner and Collins, Community Health, Keeping People Well, 108-125; The Health Department, 148-169.

O'Shea and Kellogg, Everyday Health, Book Two, 260-270.

Whitcomb and Beveridge, Our Health Habits, 429.

Wooten, A Health Education Procedure, 63-64.

Bigelow and Broadhurst, Health in Home and Neighborhood, Carriers, Preventions and Control of disease, 33-34; 215-216; 221-226; 194; 251-283.

Ritchie, Primer of Physiology and Sanitation, Disinfections, 158-164; Health Officers, 143, 172, 188-191.

Metropolitan Life Insurance Company, New York City, Welfare Division, School Health Bureau, Some Ways of Using the Health Heroes Series: Hero Series: Edward Trudeau, Walter Reed, Edward Jenner, Louis Pasteur; Health of the Worker; Tuberculosis.

Ohio State Department of Health, The House Fly.

U. S. Health Department, Transmission of Disease by Flies.

XII. Physiology

Emerson and Betts, Physiology and Hygiene, Book Two, Digestion, 184-192; Excretion, 204-211.

Andress and Evans, Health and Good Citizenship, 23-30; 113-129; 102-113; 206-213; 68-94; 13; 96-99; 365-367.

Turner and Collins, Cleanliness and Health, 84-116; 30-34.

Andress and Brown, Science and the Way to Health, 136-151; 179-193; 270-296; 349.

Ritchie, Primer of Physiology and Sanitation, 242-252; Organs of Digestion, 371-384; Respiration, 279-286; Heart and Blood, 265-279; Study of the Nervous System, 317-335.

EIGHTH GRADE

SUGGESTED WEEKLY TIME ALLOTMENTS

The time allotted per week to health, physical, and safety education should be divided approximately as follows: recess, including supervised play, 150 minutes; physical training, 100; and hygiene, 30.

SUGGESTIVE ILLUSTRATIONS OF TEACHING

See suggestions of the preceding grades, especially the illustrations for the seventh grade.

GRADE OUTCOMES

I. Knowledge:

(Improve mastery of these knowledges, habits and skills, and attitudes attained in previous grades.)

- A. Personal Hygiene and Sanitation.
 - 1. Importance of having a healthy skin.
 - 2. Relation of hygienic living to the health of the skin.
 - 3. Judgment of the sanitary and hygienic conditions of such places as barber shops, beauty shops, markets, fountains, etc.
 - 4. Increased knowledge in the value of diet in relation to the various physical organs.
 - 5. Sources of obtaining public water and various methods of purification.
 - 6. Selection and organization of data and graphs showing
- a. Hygienic and sanitary conditions of localities.

 B. Nutrition, rest, Air and Sunshine:
 - 1. Increased knowledge in
 - a. Selection of an adequate nutritious diet for self and for family.

- b. Preparation and the serving of meals.
- c. Economical buying of foods.
- d. Selection and the proper use of laxative foods.
- 2. Understands enough of the mechanism of respiratory system to appreciate value of the related hygienic practices.
- 3. Scientific evidence showing the value of sunshine and fresh air for health.

C. Exercise and Posture:

D. Clothing:

- 1. Selection of clothing for various conditions, and knows the relation between ones clothing and income.
- 2. Sources from which clothing is obtained and the fundamental processes of the manufacturing of clothing.
- 3. Fundamental structure of the feet and how to prevent fallen arches.
- E. Safety first, first aid, and contagious and infectious diseases:
 - 1. Use of a fire extinguisher and of common electrical apparatus.
 - 2. Effects of carbon dioxide poison and how to prevent it.
 - 3. Technique of saving life in water.
 - 4. Country and municipal organizations for protecting health.
 - 5. Complications often follow neglected teeth, tonsils, etc.
 - 6. Some understanding of bacteriology.

F. Mental and Social Health:

- 1. Hygienic value in contracting emotions.
- 2. Wholesome social relations with the opposite sex.

G. Physiology:

1. Construction of diagrams showing the structure and functions of the various physiological organs.

II. Habits and Skills:

- A. Personal Hygiene and Sanitation:
 - 1. Organizes and conducts community health Campaign.
 - 2. Helps enforce government quarantines.
- B. Nutrition, Rest, Air, and Sunshine:
 - 1. Avoids excessive use of protein and sugar.
 - 2. Practices buying food economically for self and for family.
 - 3. Cares for food in a sanitary way.
 - 4. Avoids food that is rendered less digestible through preparation, e. g. rich pastries, and fried foods.
 - 5. Consults a specialist for advice in any marked defect in nutrition.
 - 6. Follows instructions of a physician or dietitian in case of illness.
 - 7. Cooperates with school and community authorities in correcting malnutrition for children.
- C. Exercise and Posture:
- D. Clothing:
 - 1. Increases skill in the selection of clothing especially foot wear.
- E. Safety First, First aid, contagious and infectious diseases:
 - 1. Increases ability to operate various kinds of machinery.
 - 2. Maintains self control and presence of mind in case of accidents.
 - 3. Makes first aid in any kind of injury.
 - 4. Cooperates with municipal authorities in controling accidents, and contagious and infectious diseases.
 - 5. Shows the importance of controling accidents, and contagious and infectious diseases by graphy and other illustrations.
- F. Mental and Social Health:
 - 1. Plans to accomplish work in the most efficient manner.

- 2. Begins to discover certain interests, and attitudes which may later show vocational inclinations.
- 4. Attempts to understand the mental, emotional, and social problems with those with which one lives and works and to establish a satisfactory relation between them.
- 5. Cooperates with co-workers, friends, and family for the common welfare.
- 6. Seeks expert advice without hesitation for any peculiarities or maladjustments in one's own behavior or that of any person for whom one is responsible.

G. Physiology:

1. Stimuates the structure, and functions of the various physiological organs to ones mode of living.

III. Attitudes:

- A. Personal Hygiene and Sanitation:
 - 1. Enjoyment of visual presentation of surveys, experiments, and graphs, to illustrate various hygienic and sanitary conditions.
 - 2. Feeling of sympathy and understanding between the children and the school and community in matters pertaining to home, school and community sanitation.
 - 3. Enjoyment of deep breathing indulged in through wholesome activity.
 - 4. Enjoyment of the sensation of fresh air.
- B. Nutrition, Rest, Air, and Sunshine:
 - 1. Increased responsibility and appreciation for the duties of citizenship.
 - 2. Application of scientific knowledges to the problem of selecting diet.
 - 3. Cooperation with health authorities in adjusting malnutrition for children.
- C. Exercise and Posture:
- D. Clothing:
 - 1. Preferring hygienic qualities in clothing rather than

- stylish fads, when there is a conflict. (Often true in footwear.)
- 2. Does not make unwise sudden changes in the amount of clothing worn.
- 3. Discomfort when not properly dressed for the occasion, or weather.
- 4. Appreciation of properly fitting clothes.
- E. Safety First, First Aid, Contagious and Infectious Diseases:
 - 1. Appreciation of the value of human life and precaution against unnecessary risks.
 - 2. Respect for traffic regulations.
 - 3. Willingness to offer service in case of emergency and to obey those in authority.
 - 4. Feeling of responsibility in noting signs of illness in one's self, or friends.
- F. Mental and Social Health:
 - 1. Appreciation of high ideals of manhood and woman-hood.
 - 2. Enjoyment of the proper relations of social life with the opposite sex.
 - 3. Regarding the prospect of future home, marriage, home making, and parenthood as the natural, normal privilege of all young people.
- G. Physiology:
 - 1. Appreciation of the complex structure and functions of the human body.

ADDITIONAL REFERENCES FOR GRADES VI, VII, AND VIII

Textbook References for Teachers.

Emerson and Betts, Physiology and Hygiene, Book Two. Whitcomb Beveridge, Our Health Habits, Rand, McNally Co., Chicago.

O'Shea and Kellogg, Keeping the Body in Health, Book Two, MacMillian Company, 60 Fifth Avenue, New York City.

Andress and Evans, Health and Good Citizenship, Ginn and Company, Chicago.

Bigelow and Broadhurst, Health in the Home and Neighborhood, Silver, Burdett & Company, Chicago.

Wiley, Health Reader, Rand, McNally & Co., Chicago.

Turner and Collins, Cleanliness and Health, D. C. Heath and Company, Dallas, Texas.

Turner and Collins, Community Health, Same Publisher.

Turner and Collins, Health, Same Publisher.

Andress and Brown, Science and the Way to Health, Ginn and Company, Chicago.

Wooten, A Health Education Procedure, National Tuberculosis Association, 370 Seventh Avenue, New York City.

Ritchie, Primer of Sanitation and Physiology, World Book Company, 2126 Prairie Avenue, Chicago.

Ritchie and Caldwell, Primer of Hygiene, World Book Company, 2126 Prairie Avenue, Chicago.

Boy Scouts of America, Handbook for Boys, Grossett and Dunlap, New York City.

Haviland Modern Physiology, Hygiene and Health, Lippin-cott and Company, Chicago.

O'Shea and Kellogg, Building Health Habits, Book One, MacMillan and Company, New York City.

Health Playlets for Sixth Grade.

Plays and Pageantry, National Tuberculosis Association, 370 Seventh Avenue, New York City.

The Commonwealth of Massachusetts, "The Quest for the Fountain of Health."

"Taking the Picnic to the Shut In," American Red Cross Association.

Health Playlets for Seventh Grade.

"Pirate Percy and the Slovenly Shop," Price 5c., "Seven Keys," Price10c., "The Spirit of the Double-Barred Cross," Price 25c., National Tuberculosis Associatin.

"A Pageant in the Interest of Good Health," Whitcomb Beveridge, "Our Health Habits," Rand, McNally,

Free Posters

Eye Sight Conservation Council of America, Times Building, New York City.

Colgate, Palm Olive-Peet Company, 105 Hudson Street, Jersey City, New Jersey.

American Institute of Baking, 1135 Fullerton Avenue, Chicago.

Cream of Wheat Company, Minneapolis, Minnesota.

The Palm Olive Company, 42-60 Fourth Street, Milwaukee, Wisconsin.

For the Reading Table

Stories of Lives of Pasteur, Jenner, Reed, Gorgas, Trudeau, Metropolitan Life Insurance, New York.

Bishop, "How the Isthmus was made Healthy in Panama." Keim and Lumet, "Louis Pasteur."

Parkman, "The Deep-Sea Doctor, Wilfred Grenfell" (Heroes of Today) "The Heroine of Radium, Madame Curie."

(Heroines of Service) "A Maiden Crusader, Frances E. Willard" (Heroes of Service), "Our Lady of the Red Cross, Clara Barton," (Heroines of Service) "The Prophet Engineer, Geo. W. Goethals," (Heroes of Today).

Riis, "Making of an American".

Plays and Games

Sperling.

The Playground Book, A. S. Barnes Co., Chicago, Illinois.

- Bancroft, J. H., Games for the Playground, Home and Gymnasium. The MacMillan Co., N. Y.
- Lee, Joseph., Play in Education, The MacMillan Company New York.
- Johnson, George E., Education by Plays and Games, Ginn and Co., Chicago, Illinois,
- Williams, Organizations and Administration of Physical Education, MacMillan Co., N. Y.
- Burchenal, Folk Dances and Singing Games, G. Schirmer, Inc., N. Y.
- Acker, E. F., Four Hundred Games for School, Home and Playground, F. A. Owen and Co.
- Elinore, E. W., A Practical Handbook of Games, Mac-Millan Co.
- Hutchinson, Dorothy, Preparation of School Grounds for Plays Fields and Athletic Events, Department of Interior, Bureau of Education, Bulletin No. 1, P. E. Series 1923.
- Educational Catalogue of Victor Records, Victor Talking Machine Co., Camden, N. Y.
- Eighty-eight Successful Plays Activities, Playground and Recreation Association of America, 315 4th Avenue, New York.
- Columbia Record Catalogue, Columbia Phonograph Co., New York.
- Athletic Badge Test for Boys and Girls, Department of Interior, Bureau of Education, Bulletin No. 2, Physical Education Series.

ORGANIZATIONS THAT SEND OUT INTERESTING HEALTH EDUCATION MATERIAL FREE

American Child Health Association, 370 Seventh Ave., N. Y.

American Institute of Baking, Chicago, Illinois,

Posters — The Meal Clock, Wheel of Good Health, Health Posters.

- American Junior Red Cross, San Francisco, Saint Louis, or Washington, D. C.
- American Social Hygiene Association, New York, Pamphlets and Booklets on Social Hygiene.
- Borden Company, Borden Building, New York, N. Y., Lessons on Nutrition., Posters and Charts.
- Bureau of Home Economics, Washington, D. C., Booklets and Posters on Nutrition. (Department of Agriculture).
- Children's Bureau, Department of Labor, Wash., D. C., Child Health Literature.
- Cleanliness Institute, 45 E. 17th St., New York City, "After the Rain," Cleanliness Bibliography.
- Clean Up and Paint Up Campaign Bureau, New York, Posters and Booklets.
- Colgate and Company, New York, and San Francisco, Booklets and Posters about Teeth.
- Cream of Wheat Company, Minneapolis, Minn.,
 Breakfast Posters, Program for Teaching Health
 Habits, The Important Business of Feeding Children.

Educator Shoe Company, New York,
Posters and X-Ray Pictures.

Eyesight Conservation Council, New York, Stories, Booklets and Pictures.

Johnson and Johnson, New Brunswick, N. J., First Aid Book, Helpful Suggestions for Care of the Sick. Kellogg Company, Battle Creek, Mich., Booklets, Posters on Nutrition.

Kolynos Company, New Haven, Connecticut.

Libby, McNeill, Libby, Chicago, Illinois,

Canned Tomatoes and Tomato Products, Canned Fruit.

Life Extension Institute, New York City, Health Examinations.

Mentholatum Company, Denver, Colorado.

Merrell-Soule Company, Syracuse, New York,
Booklet on Feeding Children, Recipe Book — Good
Pies to Make.

Metropolitan Life Insurance Company, New York, Mother Goose, Alphabet Book, Art, Health Booklets.

Metzger Brothers, Sanitary Jersey Dairy, Dallas, Texas. Chicago.

Minute Tapioca Company, Orange, New Jersey, School Health Projects, Chart which contains colored pictures, suitable for health or silent reading.

National Committee for Prevention of Blindness, N. Y. City. National Dairy Council,

910 S. Michigan Ave., Chicago, Illinois.

National Safety Council, 945 George Street, Chicago, Ill., Booklets, Pictures and Posters on Safety Education.

National W. C. T. U., Evanston, Illinois, Temperance Booklets.

National Tuberculosis Association, 370 Seventh Ave., New York, and Albuquerque, N. M.

Palm Olive-Peet Company, Kansas City, Missouri, Posters and Booklets on Cleanliness.

Pittsburgh District Dairy Council, 503 Nixon Bldg., Pittsburgh, Pennsylvania.

Postum Cereal Company, Battle Creek, Michigan, Posters, The School Lunch, Hidden Treasure, Wonderful Lunch Box, Food Chart, A Plan for the Day's Choice of Food. Proctor and Gamble, Cincinnati, Ohio,

Cleanliness Crusade, Muddies of Mussyland, Posters.

Quaker Oats Company, Chicago, Illinois,

Hob-o-the-Mill, The Story of Grain, Quaker Cereal Products — a Book of Recipes.

Shredded Wheat Company, Niagara Falls, New York, Health in Every Shred — Recipe Book.

Southern Cotton Oil Company, Savannah, Georgia, Recipe Book — Good Things to Eat.

State Board of Health, Raleigh, North Carolina, Monthly Bulletin, Booklets.

Sun-Maid Raisin Growers of California, Fresno, Califronia, Recipe Book for Raisin Cookery.

Shelby Shoe Company, Portsmouth, Ohio.

Swift and Company, Chicago, Illinois, Meat Recipe Book.

Takamine Corporation, New York City,
Free sample toothbrush, Booklet — Keeping the Teeth
Well.

Tennessee Dairies, Inc., Dallas, Texas.

U. S. Department of Agriculture, Washington, D. C.

U. S. Department of Education, Department of Interior, Washington, D. C.

U. S. Public Health Service, Treasury Department, Washington, D. C.

Winchester Repeating Arms Co., New Haven, Conn.,
How to Use Firearms, The Boy — The Gun — The
Ammunition.

PHONOGRAPH RECORDS FOR HEALTH ACTIVITIES

First and Second Grades

Mulberry Bush,	Victor	Record	No.	17104
Chimes of Dunkirk,	Victor	Record	No.	17327
Ride a Cock Horse,	Victor	Record	No.	17004
Looby Loo,	Victor	Record	No.	17567
The Muffin Man,	Victor	Record	No.	17568
Shoemaker's Dance,	Victor	Record	No.	17084
London Bridge,	Victor	Record	No.	17104
Oats, Peas and Beans,	Victor	Record	No.	17567
Clap Dance,	Victor	Record	No.	17327
Did You Ever See a Lassie,	Victor	Record	No.	17568
See Saw,	Victor	Record	No.	17596
Dance of Greeting,	Victor	$\mathbf{Record}^{\boldsymbol{\xi}}$	No.	17158
Jolly Is the Miller,	Victor	Record	No.	17567
Kinderpolka,	Victor	Record	No.	17327
Gustaf's Skoal,	Victor	Record	No.	17730
Nixie Polka,	Victor	Record	No.	17083

Third and Fourth Grades

Ace of Diamonds,	Victor	Record	No.	17083
Bleking,	Victor	Record	No.	17085
French Reel,	Victor	Record	No.	18600
Hop Mar Annika,	Victor	Record	No.	17331
Klappdans,	Victor	Record	No.	17084
Tantoli,	Victor	Record	No.	3054
Csardas,	Victor	Record	No.	17003

Fifth, Sixth, and Seventh Grades

Highland Schottische,	Victor	Record	No.	17331
Oxdansen,	Victor	Record	No.	17003
Cshbagar,	Victor	Record	No.	17821



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Irish Lilt,	Victor	Record	No.	17331
Pop Goes the Weasel,	Victor	Record	No.	17160
Norwegian Mt. March,	Victor	Record	No.	17160
Seven Jumps,	Victor	Record	No.	17777
Jump Jim Crow,	Victor	Record	No.	17159

Unclassified

Yankee Doodle,	Victor	Record	No.	17583
Glowworm,	Victor	Record	No.	17227
First Day of May,	Victor	Record	No.	17761
Highland Fling,	Victor	Record	No.	17331
Ma's Little Pigs,	Victor	Record	No.	17510
Russian Noblemen,	Victor	Record	No.	17001
Sellenger's Round,	Victor	Record	No.	18010

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